

AD _____

Award Number:
W81XWH-10-2-0057

Title:
Southeastern Virtual Institute for Health Equity and Wellness (SE VIEW)

Principal Investigator:
Sabra C. Slaughter, PhD

Contracting Organization:
Medical University of South Carolina
Charleston, South Carolina 29425-0001

Report Date:
July 2013

Type of Report:
Annual Report

Prepared For:
U.S. Army Medical Research and Material Command
Fort Detrick, Maryland 21702-5012

Distribution Statement:
 Approved for public release; distribution unlimited
 Distribution limited to U.S. Government agencies only; report contains proprietary information

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE		<i>Form Approved OMB No. 0704-0188</i>		
<p>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person should be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</p>				
1. REPORT DATE July-2013	2. REPORT TYPE Annual Report	3. DATES COVERED 1 July 2012 – 30 June 2013		
4. TITLE AND SUBTITLE Southeastern Virtual Institute for Health Equity and Wellness (SE VIEW)		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER W81XWH-10-2-0057		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHORS Sabra C. Slaughter, PhD: SE VIEW PI Tracey W. Smith, MHA: SE VIEW Program Manager Co-investigators: SE VIEW Project Directors		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME AND ADDRESS Medical University of South Carolina 19 Hagood Avenue, Suite 408 Charleston, SC 29425-0001		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME & ADDRESS U.S. Army Medical Research and Material Command Fort Detrick, Maryland 21702-5012		10. SPONSOR/MONITOR'S ACRONYM		
		11. SPONSOR/MONITOR'S REPORT NUMBER		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES				
<p>14. ABSTRACT SE VIEW Phase I, its Co-investigators and Administrative Core has completed Year 3 of 14 community-based research and service outreach programs. A 12-month no cost extension (NCE) has been approved for Phase I for FY14 (July 1, 2013 – June 30, 2014). The 6 additional programs under SE VIEW Phase II are nearing the end of Year 2 operation. The purpose of SE VIEW is to discover and deliver innovative health care and community capacity building solutions for underserved populations. An additional targeted outcome is to reduce the rejection rate as well as improve the enlistment opportunities and tenure of active duty military personnel.</p> <p>The Administrative Core delivered operations, infrastructure access, strategic consultation, and quality process support to ensure proper directions, logistics, financial transactions, regulatory compliance, collaborative exchange, community-capacity building, and alignments with the goals of programmatic synergies and streamlining administrative processes and to foster strategic partnerships and programs to address the burden of health disparities.</p> <p>An evaluation planning process, inclusive of an evaluation logic model to identify SE VIEW success objectives, continues to be developed and will be completed during the FY14 NCE. SE VIEW programmatic activities, infrastructure, collaborative exchange and evaluation priorities/outcome measures will drive the Phase I NCE and the Phase II Year 3 advances and serve as foundational for SE VIEW achievement of its stated aims.</p>				
15. SUBJECT TERMS Health Disparities, Cancer, Obesity, Diabetes, Cardiovascular Community				
16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 129	19a. NAME OF RESPONSIBLE PERSON USAMRMC
a. REPORT U	b. ABSTRACT U	c. THIS PG U		19b. TELEPHONE NUMBER (including area code)

Table of Contents

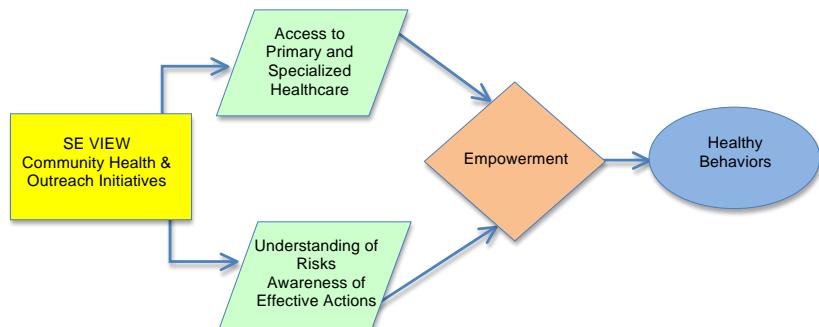
Introduction to SE VIEW.....	4
Body	5
Key Research Accomplishments	75
Reportable Outcomes.....	92
Conclusion	102
References.....	103
Appendices.....	105

Introduction to SE VIEW

South Carolina and other Southeastern states share a disproportionate burden of chronic diseases, including diabetes, hypertension, various cancers, metabolic syndrome and periodontal disease, which limit opportunities for individuals to enter military service. The rural nature of the region compounds issues of healthcare access and delivery. Racial, ethnic and socioeconomic disparities amplify incidence, prevalence and complications associated with chronic illness. With escalating healthcare costs impacting federal, state and employer budgets, the economic consequences of health disparities represent a key driver for effecting change, improving quality of care for many Americans and ensuring a military-ready population. The Medical University of South Carolina (MUSC) is addressing these burdens through the **Southeastern Virtual Institute for Health Equity and Wellness (SE VIEW)**. The vision of SE VIEW is to develop a nationally recognized, multidisciplinary, inter-professional team of researchers, educators, outreach professionals and laypersons to reduce health disparities. Sabra C. Slaughter, PhD, serves as the Principal Investigator (PI) of SE VIEW and Director of the SE VIEW Administrative Core (SEVAC). Dr. Slaughter and SEVAC provide comprehensive program planning, management, coordination, integration and evaluation. Overall, SE VIEW seeks to:

- Increase awareness of the underlying causes of chronic diseases in the region.
- Develop novel methods to engage communities in the prevention and treatment of chronic diseases.
- Develop community-based services and research initiatives focused on chronic diseases and socioeconomic factors.
- Develop a range of youth-based, active and interactive, electronic modalities to increase the prevention, detection and treatment of chronic diseases.

Figure 1. Conceptual Flow of SE VIEW's Plan to Reduce Health Disparities



SE VIEW operates as a model of cooperation to advance collaborative community-based research and service outreach initiatives designed to improve health conditions that preclude enlistment or reduce the functional tenure of military personnel. The flow concept is illustrated in **Fig. 1**.

SE VIEW Goals

- GOAL A - Integrate MUSC's model initiatives focused on health disparities into SE VIEW by identifying programmatic synergies and streamlining administrative processes.
 - Objective A1: Establish a single Administrative and Coordinating Core to oversee project logistics, financial transactions, regulatory compliance and bi-directional communications.
 - Objective A2: Establish an Evaluation & Tracking Core to monitor SE VIEW activities and provide timely feedback to the Principal Investigator, Initiative Directors and TATRC to improve program quality.
- GOAL B - Develop strategic partnerships and programs to address the burden of health disparities.
 - Objective B1: Establish an Educational Program to reduce health disparities.
 - Objective B2: Establish a Preventive Medicine, Health and Wellness Program to reduce health disparities.
 - Objective B3: Establish a Community Partnerships and Outreach Program to reduce health disparities.

Body

SE VIEW Phase I, its Co-investigators and Administrative Core has completed Year 3 of 14 community-based research and service outreach programs. A 12-month no cost extension (NCE) has been approved for Phase I for FY14 (July 1, 2013 – June 30, 2014). The 6 additional programs under SE VIEW Phase II are nearing the end of Year 2 operation. The purpose of SE VIEW is to discover and deliver innovative health care and community capacity building solutions for underserved populations. An additional targeted outcome is to reduce the rejection rate as well as improve the enlistment opportunities and tenure of active duty military personnel.

The Administrative Core delivered operations, infrastructure access, strategic consultation, and quality process support to ensure proper directions, logistics, financial transactions, regulatory compliance, collaborative exchange, community-capacity building, and alignments with the goals of programmatic synergies and streamlining administrative processes and to foster strategic partnerships and programs to address the burden of health disparities.

An evaluation planning process, inclusive of an evaluation logic model to identify SE VIEW success objectives, continues to be developed and will be completed during the FY14 NCE. SE VIEW programmatic activities, infrastructure, collaborative exchange and evaluation priorities/outcome measures will drive the Phase I NCE and the Phase II Year 3 advances and serve as foundational for SE VIEW achievement of its stated aims.

SE VIEW's community-based research and service initiatives are aligned under three program categories addressing **Education (B1)**, **Preventive Medicine, Health and Wellness (B2)**, and **Community Partnerships and Outreach (B3)**. **Fig. 2** illustrates SE VIEW's interative framework.

Figure 2. SE VIEW's Integrative Framework



A. Goal A – integrate MUSC’s model initiatives focused on health disparities into SE VIEW by identifying programmatic synergies and streamlining administrative processes.

A1. Objective A1 – establish a single Administrative and Coordinating Core to oversee project logistics, financial transactions, regulatory compliance and bi-directional communications.

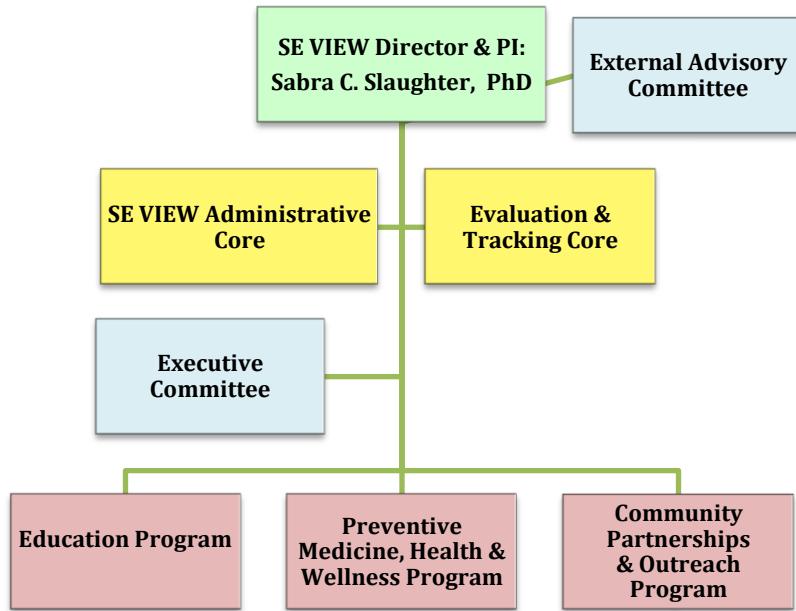
Effective leadership and management ensure that SE VIEW initiatives are fully realized. SE VIEW has strong support at the highest levels at MUSC. The Principal Investigator, Project Manager, Business Manager and Initiative Directors are highly capable individuals with the commitment, experience and authority to conduct SE VIEW.

A1a. Southeastern VIEW Administrative Core (SEVAC) Team:

- Jennifer Friday, PhD (Evaluation Consultant)
- Thomas Gordon, PhD (Strategic Planning Consultant)
- Sabra C. Slaughter, PhD (SE VIEW Principal Investigator)
- Tracey W. Smith, MHA (Program Manager)
- Garcia E. Williams (Marketing Consultant)
- Bart Yancey, MPA (Business Manager)

Fig. 3 shows the SE VIEW Organizational Chart. Key elements include a well-defined academic home, clear leadership, synergistic programs and committee structures. Individual initiatives are aligned under the three program headings. SEVAC ensures that lines of communication, agendas, actions and decisions are coordinated and targeted to the project goals and objectives. SEVAC staff coordinate activities across the region, convene committee and town hall meetings, host retreats, manage program logistics, and ensure overall operational efficiency.

Figure 3. SE VIEW Organizational Chart



A1b. Director and Principal Investigator

Sabra Slaughter, PhD, SE VIEW Principal Investigator, serves as Chief of Staff in the Office of the President of MUSC. He previously directed the SC Area Health Education Consortium (AHEC). Dr. Slaughter earned a PhD in psychology from the University of Michigan. Dr. Slaughter has extensive administrative experience in health professional education, outreach and workforce diversity. He has been PI of 9 major extramural projects

related to healthcare and health disparities. As Chief of Staff, Dr. Slaughter works closely with the MUSC Board of Trustees, President, Vice Presidents, Deans and Faculty. He has the authority to make institutional decisions and commitments in developing SE VIEW policies and procedures, and is authorized to manage the adoption and implementation of best practices.

A1c. Strategic Planning Consultant

SE VIEW has engaged TAGA Consulting, a strategic planning and consulting company, to help design, facilitate and support strategic planning and ongoing quality improvement processes. TAGA's founder and principal, Thomas A. Gordon, PhD, is a licensed psychologist with degrees from Harvard University and the University of Michigan. Dr. Gordon has provided strategic consulting services to public and private institutions including Aetna Healthcare, AT&T, Johnson & Johnson, Merck Pharmaceuticals, Siemens, US Army, US Dept. of Labor and US Postal Service. Responsibilities include collaborating on the design of the planning process, supporting the flow of information between SE VIEW initiative directors and key stakeholders to identify synergies and minimize barriers; developing processes to ensure effective communications, cultural sensitivity and shared focus on SE VIEW activities; and developing and guiding change management activities to support commitment to the SE VIEW plan.

A1d. Committee Structure

Internal and external committees facilitate coordination and accountability. Committee members and stakeholders will receive annual progress reports in addition to interim (quarterly and ad hoc) reports, plans and assessment materials.

Executive Committee (EC). The Executive Committee (EC), composed of the Initiative Directors, is SE VIEW's internal committee for communication, collaboration and management. The PI serves as chair, the Program Manager serves as Executive Secretary, and the Strategic Planning Consultant and Evaluation & Tracking Director are standing advisors. The EC holds bi-monthly 3.5-hr meetings (**Appendices 1-4**). Each meeting includes 2-3 scheduled 'stand-up' 15-min program reports on recent progress, challenges, alternatives, results and future directions as well as 3-min 'roundtable' updates from other program leaders. The EC's role is to ensure integration among initiatives, advise on issues common to all SE VIEW initiatives such as resource utilization, and see that SE VIEW milestones are met in a timely manner. The members are responsible for evaluation and tracking with direct input from the Evaluation & Tracking Director.

External Advisory Committee (EAC). The SE VIEW External Advisory Committee (EAC) is made up of one nationally recognized expert in health disparities (W. Timothy Garvey, MD), three civic/community leaders in SC (Vince Ford, Allen Parrott, D.Min, and Rita Scott), and one TATRC member (Wilbur Malloy, MA, MLS – Ex Officio Member). The purpose of the EAC is to review SE VIEW's impact, integration and productivity based on measurable progress toward goals and to advise SE VIEW leadership concerning scientific direction and results. They will review the performance of the PI and make recommendations for enhancing impact and effectiveness. EAC Community members, in tandem with SE VIEW Initiative Directors, will help create a plan for community education, outreach and advocacy that is responsive to the diversity, needs and interests of the communities served by SE VIEW. The EAC met during the October 2012 SE VIEW Annual Reception and Retreat that took place on October 17-18, 2012. The following lists the SE VIEW EAC member biographies:



Vince Ford

Mr. Vince Ford is Senior Vice President of Community Health at Palmetto Health in Columbia, SC. Mr. For is responsible for Palmetto Health's \$17 million tithe to the community for health issues. Mr. Ford had been working under the auspices of Richland Memorial Hospital since April 21, 1997. Prior to that, he was the Executive Director of the Boys and Girls Clubs of the Midlands. Mr. Ford is active in the community and has served as Director of the Sickle Cell Foundation

and as Chairman of Richland School District One School Board. The South Carolina School Boards Association named him Outstanding School Board Member for the Sixth Congressional District and All-State School Board Member. Mr. Ford also serves on the Benedict College Board and the University of South Carolina African American Community Advisory Board. Mr. Ford earned his Bachelor of Science in Sociology from Benedict College and Master of Science in Individual and Family Development from S.C. State University.



W. Timothy Garvey, MD

Dr. W. Timothy Garvey is Professor of Medicine and Chair of the Department of Nutrition Sciences at the University of Alabama at Birmingham. He obtained his MD degree, cum laude, from St. Louis University in 1978, and completed residency training in Internal Medicine at Barnes Hospital, Washington University, in 1981. He then was a clinical fellow in Endocrinology and Metabolism at the University of Colorado Health Sciences Center and University of California, San Diego School of Medicine. He subsequently held faculty posts at the University of California, School of Medicine (Assistant Professor), Indiana University School of Medicine (Associate and full Professor), and from 1994 to 2003 was the Director of the Division of Endocrinology, Diabetes, and Medical Genetics at the Medical University of South Carolina. Dr. Garvey moved to UAB on June 1, 2004.

Dr. Garvey has achieved international recognition for his research in the metabolic, molecular, and genetic pathogenesis of insulin resistance, Type 2 Diabetes, and obesity. His studies have involved the cellular and molecular biology of cell and animal models, metabolic investigations of human subjects on metabolic research wards, and the genetic basis of diseases in Gullah-speaking African Americans, Pima Indians, and national cohorts of diabetes patients. Dr. Garvey has directed an independent laboratory since 1987 supported by the National Institutes of Health (NIDDK, NHLBI), the Department of Veterans Affairs, the AHA, JDFI, the ADA, and other agencies. Dr. Garvey also has a track record of community based research and outreach in the context of two initiatives, Project Sugar (a genetics study among Gullah-speaking African Americans) and MUSC/HBCU Partners in Wellness (a program in community health at 6 historically black colleges and universities in SC intended to challenge minority students towards careers in the health professions).

He has provided service as a member of national research review committees for the Juvenile Diabetes Research Foundation, the American Diabetes Association, the VA Merit Review Program, and the National Institutes of Health. He was a standing member of the Metabolism Study Section at NIH from 1998-2002, and has chaired several ad hoc NIH study sections. Dr. Garvey currently serves on the editorial boards of Diabetes, and has previously served in this capacity for the Journal of Clinical Endocrinology and Metabolism and Diabetes Reviews. He is a member of the American Society for Clinical Investigation, the Association of American Physicians, the Endocrine Society, and the American Diabetes Association, and the North American Association for the Study of Obesity.



Allen W. Parrot, D.Min

Dr. Allen W. Parrott is the Presiding Elder of the Kingstree District in the Seventh Episcopal District of the African Methodist Episcopal Church. He has been involved in health ministry and the role of the church in addressing health needs of the people. Dr. Parrott has also developed workshops and has written several publications focusing on lay ministry and the class leader in Methodism. Among them are: 1) Class Leaders Training Workshop, a six-hour intensive training that focuses on the biblical, historical and theological understanding of the class leader ministry, 2) Empowering The Laity for Effective Ministry and Service: A Message And A Ministry, and 3) Empowering Class Leaders for Effective Ministry. Dr. Parrott is a 1971 graduate of Mayo High School, Darlington, South Carolina. He graduated from Allen University (Columbia, SC) in 1975 with a Bachelor of Arts degree. He earned a Masters of

Divinity degree from Turner Theological Seminary in Atlanta, GA (1979), and a Doctor of Ministry degree from Erskine Theological Seminary (Due West, SC). Dr. Parrott is married to Barbara Ann Carty Parrott of Sumter, South Carolina. They are the proud parents of three children, Kevin Eugene (Erica), Korey Allen (Autumn), Kimberly Rochelle and two grandchildren, Kendall and Jayden.



Rita L. Scott

Mrs. Rita L. Scott is the Vice President and General Manager of WCSC-TV5. This station is the CBS affiliate in Charleston and the number one station in ratings and revenue. WCSC is also the number one web/mobile platform in the Lowcountry. In 2010, the station launched a second digital channel "Live 5 Plus" and in September 2011 launched "Bounce" the first over the air network targeting the African American community on its third digital channel.

Mrs. Scott is active in the community, serving on numerous Boards to include Spoleto USA, International African American Museum (Vice Chair), Trident United Way, Regional CEO Council, and is also a member of the Nielsen Alliance. In 1999, Mayor Riley and the City of Charleston honored her as the first African American woman to become General Manager of an affiliate television station, naming October 21 in her honor.

Mrs. Scott was born in High Point, North Carolina. Her career in the broadcasting field began in sales with WGHP Television, Greensboro/High Point, North Carolina. She has held numerous positions in television sales including positions with WJW in Cleveland, Ohio and Cap Cities/ABC National Sales in Chicago, Illinois before eventually moving back to the Carolinas as Local & National Sales Manager at WBTV in Charlotte. Mrs. Scott attended High Point College and Appalachian State University with studies in Speech Communications with a Broadcast Concentration and a Business Minor.



Wilbur W. Malloy, MA, MLS (ASCP) SBB

Mr. Malloy is a retired Army Officer (Lieutenant Colonel, Medical Service Corp) and during his 23 years of military service directed numerous clinical laboratories and blood banking facilities. He has received numerous awards and accolades to include the Legion of Merit. Wilbur is a disabled Vietnam-era veteran and served in Operation Desert Shield/Desert Storm in Saudi Arabia. During his last military assignment, he served as the Laboratory Manager for the Department of Pathology and Area Laboratory Services at the Walter Reed Army Medical Center, Washington DC. Currently, Wilbur is the Portfolio Director for Blood Products and Blood Safety and serves as a Program Director for the Telemedicine and Advanced Technology Research Center (TATRC) at the United States Army Medical Research and Materiel Command (MRMC), Fort Detrick, MD. TATRC

manages approximately 500 million dollars in medical research for the Department of Defense and Wilbur has utilized his 30 plus years of experience in healthcare and military medicine to identify, explore and demonstrate key technologies and biomedical principles required to overcome technology barriers that are both medically and militarily unique. Wilbur has contracting officer representative responsibilities for projects in the areas of computational biology, bio monitoring, blood products and safety, regenerative medicine, nano-medicine and biomaterials, medical logistics, infectious disease, wellness and training, and genomics and proteomics. Mr. Malloy has completed graduate studies at the University of Maryland and is a graduate of Pepperdine University (Malibu, CA) with a Master's Degree in Healthcare/Research Management and North Carolina A&T State University (Greensboro, NC) with a Bachelor of Science degree in Professional Biology. He is a

registered Medical Laboratory Scientist/Medical Technologist and Specialist in Blood Banking and Immunohematology.

A2. Objective A2 – Establish an Evaluation & Tracking Core to monitor SE VIEW activities and provide timely feedback to the Principal Investigator, Initiative Directors and TATRC to improve program quality.

An evaluation planning process, inclusive of an evaluation logic model to identify SE VIEW success objectives, continues to be developed and will be completed during the FY14 NCE. SEVAC continues to engage Jennifer C. Friday, PhD, of The Friday Consulting Group, to provide expertise and guidance in designing and implementing the Evaluation Plan. Dr. Friday is a behavioral scientist with >25 years' experience in researching and evaluating health and education programs. She received her BS in biology from Millikin University, and master's and doctoral degrees in psychology from the University of Tennessee, Knoxville. For 13 years she worked at the CDC in programs dealing with HIV/AIDS and violence prevention. Dr. Friday's policy development skills were honed at the Joint Center for Political and Economic Studies in Washington, DC. She has facilitated workshops and training programs, devise strategic plans, and guided program planning and evaluation for government agencies, community-based organizations, and for-profit and non-profit entities, including Community Health Outreach Works, Inc., Alliance for Christian Media, Oakhurst Community Health Center, and the Rosalynn Carter Institute for Human Development.

The evaluation consultant will: (a) develop the logic model; (b) identify key success indicators and measures for each initiative; (c) develop the evaluation plan and framework for the overall SE VIEW project; (d) keep performance indicators and data collection focused on measures of success; (e) demonstrate the value of increased effectiveness and efficiency; (f) utilize quality improvement methods to achieve evaluation aims; and (g) work with participants on how to utilize evaluation data. The SE VIEW Evaluation Plan includes process, outcome and impact evaluation. The impact evaluation will be designed now as part of the Evaluation Plan, and implemented at a future date when SE VIEW is completed and/or integrated into the community.

Process Evaluation. The process evaluation will document and analyze implementation of the project. This includes identification and integration of the individual initiatives into the overall SE VIEW project. Data collection methods will include document reviews such as quarterly reports, minutes from bi-monthly project meetings, key informant interviews and observations. Data and information from the process evaluation component will be used to provide feedback to improve services on an ongoing basis.

Outcome Evaluation. The outcome evaluation of the project documents whether the project goals and objectives were met. The outcome evaluation will address the degree to which the project was successful in achieving measurable, positive results in the key outcome goals of the project. Specifically, the outcome evaluation is designed to document the project's degree of success in conducting the outcome evaluation. Both quantitative and qualitative data will be collected and analyzed. The outcomes for the evaluation are divided into short-, medium-, and long-term objectives. The short-term objectives focus on increasing the knowledge base of the participants, the medium term objectives focus more on behavior change while the long-term objectives are focused on the overall outcomes for the program.

Impact Evaluation. The impact evaluation component will focus on the extent to which the SE-VIEW activities made a difference in the target community. This will include changes in community health status, improved access to care, and general improvement in health delivery systems. The impact evaluation will be designed as part of the evaluation plan, but it is not expected that this will be a part of this current project. Impact evaluations will be implemented at a future date once the project is completed and has had some time to become integrated into the community.

Data Plan

The evaluation will utilize both qualitative and quantitative data. Qualitative data will include document reviews, individual interviews, focus groups and surveys. Quantitative data will be collected through implementation activities, participation rates, self-report questionnaires, curriculum assessments, and other program activities.

Data will be gathered utilizing a variety of methods and modalities. Utilizing multiple data sources is critical because of the variety of activities that each of the projects will be engaging in. This will help to facilitate gathering a variety of information that will be helpful in understanding how the program is being implemented and the progress towards achieving the program outcomes.

Baseline data will be collected by each of the SE-VIEW projects at the outset. These baseline data will be summarize for use by SE-VIEW as the starting point for the overall evaluation. Process evaluation data will be ongoing and additional data to support the process evaluation will be collect quarterly or as needed for the established reporting system. Outcome data will be collected once a year during the project period.

In addition to the data collected by the individual projects, the overall SE-VIEW project will also collect data to supplement the information received. Data collection methods will include the following:

- **Case Studies**

Case studies of SE-VIEW projects may be conducted to take a thorough look at the steps needed to develop, implement, and evaluate the project. This would provide an in-depth description about what is needed for effective service delivery and achievement of outcomes.

- **Document Reviews**

Analysis of documents that include but are not limited to program records, research reports, census data, health records, as well as newspaper and magazine articles. Paper and computerized archival data will be collected and analyzed, attendance at all program functions will be recorded and monitored, and site visits by members of the evaluation team will be used to provide feedback on the fidelity of implementation

- **Focus Groups**

Focus Groups with subsets of the communities beings served, participants, partners and others will be conducted to gather in-depth information related to the activities of SE-VIEW.

- **Interviews**

Data will be collected with in-person or telephone interviews and with targeted focus groups. This will provide qualitative data that will be incorporated into both the process and outcome components of the evaluation.

- **Medical Assessments and Tests**

An assortment of medical assessments and diagnostic tests will be administered by the SE-VIEW projects. These include, but are not limited to blood pressure readings, hemoglobin A1C, cultures.

- **Observations**

Observe situations, behaviors and activities in a formalized and systematic way, usually using observational checklists and trained observers.

- **Surveys and Written Data Collection Instruments**

Data will be collected through the use surveys that will be collected in a variety of ways including in-person, online, phone and mail. These surveys may be developed for the individual programs or may be existing standardize measures. We will also utilize program logs and other data collection methods use as part of the regular program activities. In addition, evaluation staff will participate in project meetings and other program activities where their presence will not interfere with program delivery or data collection. Paper and computerized archival data will be collected and analyzed, attendance at all program functions will be recorded and monitored, and site visits the evaluation team will be used to provide feedback on the fidelity of implementation.

Data Analysis

The mixed model nature of the data to be collected will require a variety of data analysis methods. Data will be analyzed using standard statistical packages and will include descriptive and inferential statistics. The data analysis will be developed as the final program plans are approved and implemented.

Institutional Review Board Submission Plan

Phase I projects needing IRB approvals were submitted to local IRB. Once they received approval, they then submitted to TATRC for its approval. The process varied in length for the different projects. As part of the process evaluation, a survey is being developed to learn more about the approval process and to determine ways to streamline the process. This information will be used to help guide the Phase II projects.

Evaluation Logic Model

The following logic model provides the framework for the SE-VIEW Evaluation Plan. The vision and goals of SE-VIEW have been established. In the model, we identify each of the projects and link them to the specific goals. Two separate evaluation plans have been developed for Phase I and Phase II. It is anticipated that once all the projects have received IRB approvals and are in their implementation phase that the Evaluation Plans will be combined.

The inputs necessary for SE-VIEW to be successful have been identified. There are several SE-VIEW activities that are listed. They include instructional and research activities, outreach and service activities, health care delivery and prevention services, as well as policy activities. The communities that are targeted are the I-95 Corridor and the Coastal Carolina communities, with some specific focuses on Johns Island, the Sea Island Gullah and Williamsburg County. These communities represent all the racial and ethnic populations and socio-demographic groups that are affected by health disparities.

The broad range of outcomes has been identified. These will become more specific and targeted as the individual projects begin implementation of their activities. The outcomes that directly relate to SE-VIEW are incorporated into the overall evaluation plan. Similarly, the data sources that have been identified are drawn from the individual projects.

The general evaluation questions are stated. As the projects get off the ground and begin the full implementation, it is anticipated that there would be additional evaluation questions that will need to be asked. Additional indicators will also be identified as we progress through the implementation of the project, and as the program activities become better defined. **Table 1** illustrates the SE VIEW Evaluation Logic Model.

Table 1. SE VIEW Evaluation Logic Model (Phase I)

SE VIEW VISION

To develop a nationally recognized multidisciplinary, inter-professional team of researchers, educators, outreach professionals and laypersons to eliminate health disparities.

SE VIEW GOALS & OBJECTIVES

Goal A: Integrate MUSC's model initiatives focused on health disparities into the SE VIEW by identifying programmatic synergies and streamlining administrative processes.

Objectives:

A1: Establish a single Administrative and Coordinating Core to oversee project logistics, financial transactions, regulatory compliance, and bi-directional communications.

A2: Establish an Evaluation and Tracking Core to monitor SE VIEW activities and provide timely feedback to the Principal Investigator, Initiative Directors and TATRAC to improve program quality.

Goal B: Develop strategic partnerships and programs to address the burden of health disparities.

Objectives:

B1: Establish an Educational Program to reduce health disparities: Program initiatives will focus on increasing awareness of health issues in communities that bear a disproportionate burden of chronic diseases, and address educational deficits related to chronic diseases. SE VIEW Projects linked to this goal:

- MUSC Public Information and Community Outreach Initiative (PICO)
- Community Institutes for Traditional and Nontraditional Leaders

B2: Establish a Preventive Medicine, Health and Wellness Program to reduce health disparities: Program initiatives will expand proven strategies and/or develop novel methods to engage communities, and remove barriers to effective healthcare. SE VIEW Projects linked to this goal:

- Stroke Risk Reduction Initiative (SRRI)
- Heart Health Initiative
- SC TeleSupport: Diabetes Management Initiative
- Tele-Critical Care Program to Reduce Health Disparities (CREST)
- Telemedicine in the Evaluation of Alzheimer's Disease in a Rural, African American Population

B3: Establish a Community Partnerships and Outreach Program to reduce health disparities: These activities will provide the foundation for integrated efforts to address chronic disease burden in populations that could provide talented recruits for military service, and disseminate evidence-based research findings. SE VIEW Projects linked to this goal:

- Lean Team Initiative
- Community Engaged Scholars Initiative (CES)
- The Health Empowerment Zone (HEZ)
- Healthy People in Healthy Communities
- Mobile Outreach Van Educational and Navigational Health Services for Underserved Populations Initiative (MOVENUP)

INPUTS

Churches/Faith-Based Organizations, Clinics/Health Centers, Emergency Dept., Federal Clinics, Funding Support, Government Agencies, Grocery Stores, Healthcare System, Hospitals Materials (Training Tools, Evaluation), MUSC, Health Clubs, PTO, Restaurants, Schools, SE View Consultants, SE View Projects, staff, tools and worksites

OUTPUTS

Activity

Community Engagement, Consultation, Cultural Exchange, Healthcare, Health Promotion, Health Career Academy, Instructional, Mentoring, Networking, Outreach, Policy, Prevention, Research, Screening, Service, Training, Web and Internet, Wellness Council

Target Population

Communities, I-95 Corridor, Coastal Carolina, Groups: African Americans, Community Leaders, Elderly, Obese Children, Rural Population, School Aged Children, Teenagers

OUTCOMES

Short Term

Increase knowledge base; increase skills and awareness

Medium Term

Utilization of knowledge base

Long Term

Increase positive behaviors; decrease in negative behaviors

DATA

Data Sources

Activity Logs, Attendance Logs, Behavioral Risk Factor Surveillance System, Census Data, Clinic Data, Community Members, Community Partners, Comorbidity (DRGs & ICD-9), Council of Governments, De-Identified Ref. Lists, Follow-Up Records, Federally Qualified Health Centers Patient Electronic Care Sys. (FQHC - PECS), Partners, Hospital Discharge Data, Institutional Data, Land Developers, Medicare/Medicaid Data, Meeting Agendas, Meeting Minutes, MUSC Faculty, MUSC Students, Neighborhood Assoc., Office Of Vital Records, Participant Logs, Program Data, Program Faculty, Program Participants, Public Access Info, Registration Forms, SC Dept. of Health, SC Off. Of Res. & Statistics, School Attendance Zones, School Data, Secondary Sources, Standardized Media Contact Form, Store Audit Survey, Structured Activity Form, Telephone Logs, Transportation Authority, Web "Hits", Working Group Reports, Youth Risk Behavioral Surveillance System

Data Collection Methods

Case Studies, CDC Change Questions, Clinical Screenings, Current Resource List, Focus Groups, Interviews, Key Informant Interviews, Medical Assessments/Tests, Observation, Organizational Assessments, School Cafeteria Audits, Screening

	Tools, Service Delivery, Surveys –General, Tests/Assessments, Walkability Survey, Windshield Survey
	<p>Data Collection Measures</p> <p>Clinical Dementia Rating Scale, Clock Drawing Test, Continuing Educ. Credits, Depression (PHQ-9), Diabetes Fatalism Scale, Diabetes Knowledge Questionnaire, Diagnostic Evaluations, Essential Medical Tests/Screens (Hemoglobin A1C; Blood Pressure; Cultures; Body Mass Index; Lipids Profile), Geriatric Depression Scale, Health Literacy, Logical Memory IIA, Medical Comorbidity (Charlson Index), Mini Mental State Exam, Modified Hachinski Ischemia Scale, Morisky Medication, Adherence Scale Patient Demographics Survey, Perceived Diabetes Self Efficacy Scale, Quality of Life Measures, Resource Use, Social Support, Standard Clinical Assessment, Summary of Diabetes, Self-Care Activities Scale, Supportive Care Measures</p>

EVALUATION QUESTIONS

Process Evaluation Questions	Outcome Evaluation Questions	Impact Evaluation Questions
Inputs How many resources (human and financial) are needed to achieve goals?	Increase Knowledge Did knowledge increase?	Which aspect of the program contributed more to the outcomes?
Who will implement the program?	Change Behavior Did we have behavioral changes?	Are there unintended outcomes?
Who provided program services?	Achieve Outcomes Was programmatic integration achieved?	Are participants satisfied with program implementation and outcomes?
What are the characteristics of coalitions, collaborations, partnerships, etc.?	Were strategic partnerships established?	What changes have participants made as a result of the program?
Are the resources adequate?	Are outcome objectives being achieved?	Who does the program affect directly and indirectly?
Activities How many programs/sessions/activities delivered?	Did the projects/interventions improve access to services?	Who benefits from this program and how?
What services/activities were provided?	Did the projects/interventions improve the quality of services provided?	Are the program's results worth the resources?
Was the curriculum delivered as intended?		
Are implementation objectives being attained?		
What was the quality of the delivery (consistency and fidelity)?		
Target Population How many participants are in the program?		
How many participants are in each session/activity?		
What is the participant's level of satisfaction with the program/activity?		
What were the facilitators to implementation?		

INDICATORS

Levels of participation, levels of service and activity, levels of support, establishment of advisory groups, listing of community programs and services, evidence of partnership activities, achievement of objectives, changes in knowledge/behavior, changes in vending machine choices, changes in physical activity, improved nutrition, increase in DASH-type meals, research productivity, reduction in health indicators, increased access to healthcare services

B. Goal B - Develop strategic partnerships and initiatives to address the burden of health disparities.

MUSC has substantial strengths serving the goals of education, prevention, community partnership and research to eliminate health disparities. These include a dynamic and diverse faculty, outstanding facilities, a strong and diverse student body, and many existing community ties. Building on these strengths, SE VIEW has identified and integrated robust programs focused on the elimination of health disparities to ensure a military ready workforce, retention of active duty personnel, and continued health in VA health services.

As shown in **Fig 2.**, SE VIEW's community-based research and service initiatives are aligned under three program categories addressing **Education (B1)**, **Preventive Medicine, Health and Wellness (B2)**, and **Community Partnerships and Outreach (B3)**. The alignment of initiatives with these objectives is based on primary thrust and specific goals of each project. However, all the programs use resources and tools that integrate educational, disease prevention/health promotion, and community engagement principles.

To illustrate SE VIEW's synergies, thematic interactions and potential for administrative efficiencies, **Tables 2-4** chart all the SE VIEW initiatives as programmatic clusters with respect to three integrative concepts: **Stages of Life, Community Engagement and Empowerment Strategies, and Disease Targets**.

Table 2. SE VIEW's Comprehensive Plan to Reduce Health Disparities across the Lifespan

<i>italics = funded in SE VIEW Phase I</i>		boldface = new/funded in Phase II		
Objectives/Approaches		Stages of Life		
		Children	Adolescents	Adults
B1 EDUCATIONAL PROGRAMS TO REDUCE HEALTH DISPARITIES				
B1a <i>Public Information and Community Outreach (PICO)</i>				
<i>B1b</i> <i>Community Institutes for Traditional and Nontraditional Leaders</i>				
<i>B1c</i> <i>Health Careers Academy & Junior Faculty Development</i>				
B1d Junior Doctors of Health				
B2 PREVENTIVE MEDICINE, HEALTH AND WELLNESS PROGRAMS				
B2a <i>Stroke Risk Reduction Initiative</i>				
B2b <i>Heart Health Initiative (Preventive Cardiology Research)</i>				
B2c SC TeleSupport (Diabetes Management Initiative)				
<i>B2d</i> <i>Tele-Critical Care to Reduce Rural Health Disparities</i>				
B2f <i>STEER Away from Alcohol and Drugs</i>				
B2g <i>Providing a Medical Home for Underserved Children via Telemedicine</i>				
B3. COMMUNITY PARTNERSHIPS AND OUTREACH PROGRAMS				
B3a <i>Lean Team Initiative</i>				
B3b <i>Community Engaged Scholars – Collaborations in CBPR</i>				
B3c <i>Mobile Outreach Van (MOVENUP) Initiative</i>				
<i>B3d</i> <i>Health Empowerment Zone</i>				
B3e <i>Healthy People in Healthy Communities</i>				
<i>B3f</i> <i>Telemedicine in the Eval. of AD in a Rural, African American Population</i>				
B3g <i>Evaluating a Media Strategy – Closing the Gap</i>				
B3h <i>CBPR to Improve Oral Health Disparities</i>				
B3i <i>Patient Risk Assessment & Health Ed. w/ Computer Kiosks in CHCs</i>				

TABLE 3. SE VIEW'S Cross-cutting Community Engagement and Empowerment Strategies*italics = funded in SE VIEW Phase I***boldface = new/funded in Phase II**

Objectives/Approaches	Strategies				
	CBPR	Health IT	Health Literacy	Tele-medicine	Work-force dev.
B1 EDUCATIONAL PROGRAMS TO REDUCE HEALTH DISPARITIES					
B1a Public Information and Community Outreach (PICO)					
<i>B1b</i> <i>Community Inst for Traditional and Nontraditional Leaders</i>					
<i>B1c</i> <i>Health Careers Academy & Junior Faculty Development</i>					
B1d Junior Doctors of Health	■				
B2 PREVENTIVE MEDICINE, HEALTH AND WELLNESS PROGRAMS					
B2a Stroke Risk Reduction Initiative		■			
B2b Heart Health Initiative (Preventive Cardiology Research)		■			
B2c SC TeleSupport (Diabetes Management Initiative)		■			
<i>B2d</i> <i>Tele-Critical Care to Reduce Rural Health Disparities</i>		■			
B2f STEER Away from Alcohol and Drugs		■			
B2g Providing a Medical Home for Underserved Children		■			
B3. COMMUNITY PARTNERSHIPS AND OUTREACH PROGRAMS					
B3a Lean Team Initiative	■				
B3b Community Engaged Scholars – Collaborations in CBPR	■				
B3c Mobile Outreach Van (MOVENUP) Initiative	■				
B3d Health Empowerment Zone	■				
B3e Healthy People in Healthy Communities		■			
<i>B3f</i> <i>Telemed. in the Eval. of AD in a Rural, African American Pop.</i>		■			
B3g Evaluating a Media Strategy – Closing the Gap	■				
B3h CBPR to Improve Oral Health Disparities	■				
B3i Patient Risk Assessment & Health Ed. w/ Computer Kiosks		■			■

TABLE 4. SE VIEW'S Strategic Targets for Reducing Health Disparities*italics = funded in SE VIEW Phase I***boldface = new/funded in Phase II**

Objectives/Approaches	Representative Health Disparities Targets								
	Primary Care	Alzheimer's/ Aging	Cancer	Diabetes	Heart Dis & Hypertension	HIV/AIDS	Obesity	Oral Health	Substance Abuse
B1 EDUCATIONAL PROGRAMS TO REDUCE HEALTH DISPARITIES									
B1a Public Information and Community Outreach (PICO)	■		■	■	■	■		■	■
B1b Community Institutes for Traditional and Nontraditional Leaders	■		■	■	■	■		■	■
B1c Health Careers Academy & Junior Faculty Development	■		■	■	■	■		■	■
B1d Junior Doctors of Health	■		■	■	■	■		■	■
B2 PREVENTIVE MEDICINE, HEALTH AND WELLNESS PROGRAMS									
B2a Stroke Risk Reduction Initiative		■							■
B2b Heart Health Initiative (Preventive Cardiology Research)	■			■	■	■	■		
B2c SC TeleSupport (Diabetes Management Initiative)	■			■	■	■	■		
<i>B2d</i> <i>Tele-Critical Care to Reduce Rural Health Disparities</i>	■			■	■	■	■		
B2f STEER Away from Alcohol and Drugs	■			■	■	■	■		
B2g Providing a Medical Home for Underserved Children	■			■	■	■	■		
B3. COMMUNITY PARTNERSHIPS AND OUTREACH PROGRAMS									
B3a Lean Team Initiative	■								
B3b Community Engaged Scholars – Collaborations in CBPR		■	■	■	■	■	■	■	■
B3c Mobile Outreach Van (MOVENUP) Initiative		■		■	■	■	■	■	
B3d Health Empowerment Zone		■		■	■	■	■	■	
B3e Healthy People in Healthy Communities		■		■	■	■	■	■	
<i>B3f</i> <i>Telemed. in the Eval. of AD in a Rural, African American Pop.</i>		■		■	■	■	■	■	
B3g Evaluating a Media Strategy – Closing the Gap	■		■	■	■	■	■	■	
B3h CBPR to Improve Oral Health Disparities	■		■	■	■	■	■	■	
B3i Patient Risk Assessment & Health Ed. w/ Computer Kiosks		■		■	■	■	■	■	

B1. Objective B1: Establish an Educational Program to reduce health disparities.

Program initiatives focus on increasing awareness of health issues in communities that bear a disproportionate burden of chronic diseases and address educational deficits related to chronic diseases. The Educational Program includes three initiatives aimed at target audiences at local and national levels and age groups across the lifespan.

B1a. MUSC Public Information and Community Outreach (PICO) Initiative

Director: David Rivers, MA, Assistant Professor, Dept. of Library Science and Informatics

Goals: Heighten public awareness of health issues; provide prevention and health screening opportunities; promote awareness of and access to affordable and culturally competent care.

Distinguishing Characteristics: Recognition of the unique relationship between human health, environmental quality, environmental justice and economic development in determining quality of life.

Sixth Annual National Conference on Health Disparities. November 28 – December 1, 2012, Little Rock, AR. This conference¹ continued to address the question: How do we augment our nation's current “sick-care” medical model with a comprehensive “well-care” approach that sustains and strengthens communities? The focus was on issues regarding non-medical determinants of health, including education levels, health literacy, poverty, public safety, community design, access to care, environmental quality, environmental justice, and personal, government and corporate responsibility. Conference presenters and participants discussed ways to incorporate these issues into policies and programs that target health disparities, recognize and address the impact of social determinants and personal responsibility on human health.

Our Health Series Made-For-Television Dialogues. The Our Health Series brings together a skilled moderator, expert panelists and active and informed studio audiences to address specific diseases and conditions that contribute to health disparities. While issues on the table are national in scope, the goal is to deliver a program that brings these issues home to South Carolinians in a way that suggests and encourages positive actions and responses. On May 30, 2013, PICO produced the *Our Health Series* dialogue entitled, *Our Nation's Health: A Focus on Social Determinants*², at the ETV studios in Columbia, SC. The program examined the impact of social determinants (poverty, race, environment, education, access to care, housing and public safety) on Americans' health and our nation's healthcare system. CNN Chief Nation Correspondent John King served as the moderator. The panel included experts in diverse fields related to the topic.

Hands on Health-SC. Hands on Health-SC³ is a consumer health information website that pays special attention to health issues of particular importance to SC citizens and communities. It is a gateway to reputable Internet health sites with additional content in both English and Spanish written for readers with low-literacy skills. Features of the site include plain language articles on the diseases and health issues that are South Carolina's Biggest Health Problems, “Go Local-SC” which is Hands on Health's statewide directory of health services, many of them free or low in cost.

Health Literacy Workshops/Trainings. Conducted by the Hands on Health-SC staff using training and skill-building materials that have been tested with diverse populations, including high school students, seniors, service professionals, and ethnic groups.

B1b. Community Institutes for Traditional and Nontraditional Leaders

Director: David Rivers, MA, Assistant Professor, Dept. of Library Science and Informatics

Goal: Help communities and constituencies build capacity to identify, access and develop leadership resources.

Distinguishing Characteristics: Integration of health disparities research and public policy directives through linkage of scientific, political and local communities; incorporation/cultivation of nontraditional (artists, musicians, athletes) as well as traditional leaders (elected officials, ministers, lawyers etc.).

Community Leadership Institutes. Community Leaders Institutes (CLIs)⁴ are two-day workshops that focus on matters such as the role of government, youth issues, health disparities, economic development, transportation and housing challenges – all through the linkage of scientific, political and local communities. During FY13, PICO and SE VIEW conducted a total of four CLIs in the following locations: Columbia, SC, Atlanta, GA, Bolton, NC and James Island, SC.

Technical Assistance Workshops. Technical Assistance Workshops (TAWs)⁴ are one-day grant writing workshops that teach the community how to locate grant-funding opportunities and prepare and manage a successful grant application. During FY13, PICO conducted TAWs in Columbia, SC and Wadmalaw Island, SC.

B1c. Health Careers Academy and Junior Faculty Development

Director: Sabra C. Slaughter, PhD, Chief of Staff, Office of the President; Associate Professor

Goal: Increase diversity in the healthcare workforce and the health disparities research arena.

Distinguishing Characteristics: Health Careers Academy: One-on-one mentoring, parental involvement, ongoing academic advisement and career tracking. Junior Faculty: Scientific and career mentoring, time management assistance, protected time for research, grantsmanship mentoring, and regulatory training and assistance.

Health Careers Academy

This program is a 1-week summer program designed to increase the acceptance, retention, and graduation rates of under-represented minority and disadvantaged students to nursing, dental, medicine and pharmacy training programs in South Carolina.⁵ The Academy is conducted in collaboration with the South Carolina AHEC, MUSC College of Nursing, College of Dental Medicine, College of Medicine, College of Health Professions, Library and the South Carolina College of Pharmacy.

The 2013 Academy was held June 2 - 7 on the campus of the Medical University of South Carolina and serviced 21 participants representing 12 of the state's counties: Berkley, Charleston, Dorchester, Greenville, Greenwood, Horry, Lexington, Orangeburg, Richland, Spartanburg, Sumter, and York. The Academy agenda was designed to meet the academic, professional, and personal needs of the participants to support matriculation to health professions education. Other details of the 2013 Academy include:

- Student Areas of Interest
 - Dental Medicine: 3
 - Medicine: 13
 - Occupational Therapy: 2
 - Pharmacy: 3
- Program Agenda
 - Collaborative Learning – IP Case Study
 - Didactic Education
 - Childhood Obesity
 - Collaborative Health Promotion
 - Program Agenda Topics
 - Financing Health Professions Education
 - Professionalism
 - Team Building
 - Public Speaking & Tips for Presenting
 - Presentation Development
 - Career Exploration
 - Research
 - SC's Population Health Data

- Research Resources & Techniques
- Careers in Research
- Gross Anatomy Lecture & Lab
- Student Success Workshops & Activities
 - Professional Networking
 - Individual Academic Advising
 - College-specific Admissions
 - Creating Your Personal Statement
 - Peer Mentoring by MUSC Students
- Experiential Learning
 - Career-specific Clinical Simulations
 - Clinical Observation
 - Service Learning Projects
 - MUSC Urban Garden
 - MUSC Gives Back/Hollings Cancer Center Sock Project
 - MUSC Gives Back/ Hollings Cancer Center Operation Heart
- Professional Networking
- Team Building
 - IP Team Challenge Poster Presentations

The Academy participants will continue their college careers in the fall of 2013. They have enrolled in the following colleges and universities: Clemson University, Coastal Carolina University, College of Charleston, Duke University (NC), Francis Marion University, University of SC, USC – Upstate, Webster University, and Wofford College.

Junior Faculty Development

SE VIEW extends training and professional development programs aimed at junior faculty development (JFD). The SE VIEW JFD program provides protected research time for health disparities research and regulatory training. The purpose is for the participants (Debbie C. Bryant, DNP and Ida J. Spruill, PhD) to gain practical experience with:

- Conducting community-base health promotion intervention research and practice with individuals in South Carolina
- Identifying and facilitating skills and resources to enhance intrinsic community capacity
- Training with intervention delivery and evaluation
- Regulatory training and maintaining quality control of study/outreach implementation
- Ensuring scientific and ethical integrity of study/service
- Reporting results of study/service outcomes.

Drs. Bryant and Spruill have made significant progress since the inception of the program. Please see the section entitled “Key Research Accomplishments” for more details.

Two additional JFD program members have been selected under Phase II of SE VIEW, Dr. Tiffany Williams, DNP and Ms. Monique Hill, MSW.

B2. Objective B2: Establish a Preventive Medicine, Health and Wellness Program to reduce health disparities.

Program initiatives will expand proven strategies and/or develop novel methods to engage communities and remove barriers to effective healthcare. This objective includes four initiatives.

B2a. Stroke and Stroke Risk Reduction Initiative (SSRI)

Director: Robert Adams, MD, Professor of Neurology; Director of the South Carolina Center of Economic Excellence; Director of the MUSC Stroke Center

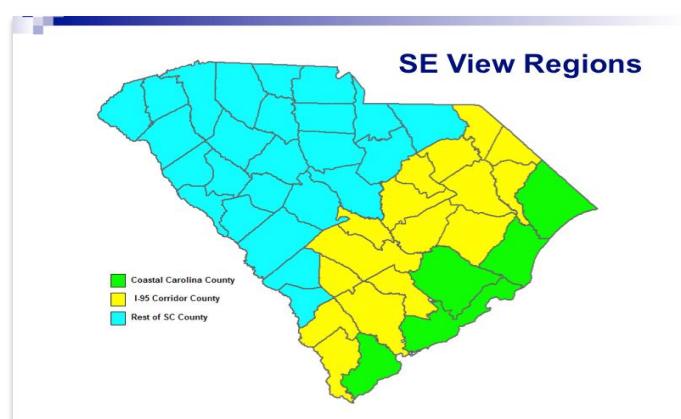
Goals: Extend access to expert stroke care to SE VIEW regions, which have very high stroke incidence, morbidity and mortality rates; develop stroke-related CME/CEU-certified education for healthcare providers.

Distinguishing Characteristics: Hub-and-spoke model integrating information technology (IT) and health information technology (HIT) with highly specialized medical expertise to deliver expert care in rural/remote areas; collaborations and mentoring between academic medical center experts and community-based providers; time-critical, cost-effective delivery of evidence-based medicine that can save lives, reduce risk of permanent disability, and improve quality of life.

South Carolina lies in the “buckle” of the Stroke Belt, suffering from a disproportionate burden of many chronic maladies including hypertension and stroke. The problem is compounded by the rural nature of the state and the ethnic and socio-economic disparities that amplify the incidence, prevalence, and complications associated with these diagnoses. With escalating health care costs impacting federal, state, and employer budgets, the economic consequences of disparities could be a key driver to effecting change, improving the quality of care for many Americans, and ensuring a military-ready population. The Stroke and Stroke Risk Reduction Initiative (SSRI) proposes to address these issues by enhancing the REACH (Remote Evaluation of Acute Ischemic Stroke) telemedicine system to attain earlier identification and management of patients with hypertension, especially those who are young and rural. The focus is on education, novel use of REACH Telemedicine, and to target stroke-related areas of disparity. These efforts are relevant because: we have far too many strokes, too many young persons are having stroke and too few patients are being treated urgently for stroke. The aims of this initiative are to: (1) Define and characterize the primary regions of interest; (2) Benchmark regions with and without REACH and evaluate the impact of telemedicine with regard to: access to care, awareness of stroke symptoms, appropriate response to stroke, attitudes regarding treatment, time from onset of symptoms to Emergency Department, and use of Alteplase (tPA); and (3) Provide targeted stroke and stroke prevention CME programs to health providers in the ROI. As a refinement to these initial aims, SSRI has also: (4) established an Epidemiology Core; (5) developed and submitted its first research protocol for IRB/TATRC approval; (6) expanded and improved access to stroke care through REACH; and (7) developed an administrative framework that supports SE VIEW’s vision of developing “a nationally recognized multidisciplinary, inter-professional team of researchers, educators, outreach professionals and laypersons to eliminate health disparities.”

As a component of the MUSC Stroke Center, SSRI established the SSRI administrative framework from which we defined and characterized the regions of interest that would be used for this research. The primary investigators, Robert J. Adams, MS, MD and Daniel Lackland DrPH, recruited a multidisciplinary, inter-professional team of researchers, educators, and outreach professionals. The SSRI team now includes neurologists, emergency medicine physicians, nurses, administrators, epidemiologists, health economists, disparities experts, research specialists, outreach personnel and others.

Figure 4. Aim 1: Regions of Interest



Potential partners are invited regularly to the weekly SSRI meetings and numerous collaborations have been created or expanded. The Regions of Interest (ROI) was defined and characterized with the disparities data collected. This approved SE VIEW Regions of Interest are depicted in **Fig 4**, and can be seen on the SE VIEW website. The two primary ROIs are the I-95 Corridor and Coastal Carolina – the regions where health disparities in S.C. are highest.

After the completion of the previous **Aim I**, we subsequently refined it into two new/revised aims to support the original scope of work:

- **Aim I: SSRI Program Administration:** *Maintain a strong, multidisciplinary team able to support program aims in a collaborative manner.*
- **Aim IV: Epidemiology Core:** *Developed Epidemiology Profiles & began to acquire/maintain overall data sets as a common resource for all SE VIEW cores.*

Aim I: SSRI Program Administration:

The SSRI Team has continued its work; supporting and refining the aims of SE VIEW and SSRI while presenting and promoting these aims and early research findings in a variety of public forums and media venue. SSRI investigators and/or their representatives consistently participated in all SE VIEW meetings and completed all required reports, while developing numerous administrative tools to support these efforts including an action-oriented weekly meeting agenda. The team met with the SE VIEW evaluation consultants, who have been invited to attend an SSRI meeting in the near future, and continue to track and report on their activities each quarter.

The SSRI Team continues to submit and follow up with requests to the ORS for current data. The “Reaching Into RHIO (Regional Health Information Organization)” study’s primary objective will be the evaluation of the potential benefit of linking to the ORS database with REACH MUSC telemedicine system for acute treatment of ischemic strokes at Spoke (consulting ED’s) sites. The results will be used to design interventions for improved stroke care focused on secondary stroke prevention.

Aim II: Benchmark regions with and without REACH and evaluate the impact of telemedicine with regard to: (A) Access to care; (B) Awareness of stroke symptoms, appropriate response to stroke, attitudes regarding treatment; (C) Time from onset of symptoms to Emergency Department; and (D) Use of Alteplase (tPA)

Toward this aim, data is collected where available and preliminary baseline analyses began. The research study protocol developed, which proposed to conduct both primary research and secondary analyses to address this aim, is still in focus, including the SSRI Protocol. This SSRI Protocol was one of the first in SE VIEW to receive MUSC Institutional Review Board (IRB) approval (Protocol #00008039). The Protocol was then submitted to TATRC for final approval, along with a scientific letter from the IRB (dated February 25, 2011). **Final TATRC approval was received on January 25, 2012.**

Aim II-A: Access to Care

Completed using existing and publically available resources. The map seen in **Appendix 5** shows the dramatic affect that a telemedicine solution can have upon access to expert stroke care; illustrating how few Primary Stroke Centers there are in S.C. and how REACH has improved geographic access to stroke resources. **It was noted, “With REACH, 76% of South Carolinians now are within a 60-minute drive of tPA treatment compared to 38% prior to REACH. The percent increase in access was highest along the I-95 corridor; a predominantly rural, high disparities region of S.C.”** The findings from this original access analyses were refined and accepted as poster presentations and a published article: Kazley AS, Wilkerson RC, Jauch E, Adams RJ: Access to expert stroke care with telemedicine: REACH MUSC. *Front. Neur.* 3:44. doi: 10.3389/fneur.2012.00044. *Epub 2012 Mar 21.*

Milestone: Reviewed and accepted for publication - Abby Swanson Kazley, PhD, "Optimizing Economic Impact of rt-PA Use in a Stroke Belt State" Journal of American Health & Drug Benefits, tba May/June 2013.

Aim II-B: Examine awareness of stroke symptoms, appropriate response to stroke, and attitudes regarding treatment

To accomplish this aim, a survey of all patients having a REACH telestroke consult was developed and tested. The Protocol describes our research design and methods and contains all patient survey materials. SSRI has moved forward by communicating with all REACH MUSC hospital leaders, notify them of this research proposal, and provide copies of the patient materials, while also requesting their input and support for this upcoming research initiative. The patient survey data has been collected with further analyses after much delay with the collections of patient data, contacting the patient and entering of data into Red Cap Survey. **Milestone:** This past quarter the collection of data from the survey is complete. Preparations for analyses and manuscript development are underway.

Aim II-C: Time from Onset of Symptoms to Emergency Department (a.k.a. Onset-to-Door time)

It is SSRI's intention to obtain Emergency Medical Services (EMS) "run sheets" on all REACH patients that used EMS. With these data, SSRI will determine: (1) fraction of patients who used 911, (2) fraction of calls dispatched as a stroke, and (3) time interval from onset of symptoms to activation of 911. Early on a data request was developed, reviewed and submitted to the S.C. Department of Health and Environmental Control (DHEC) for two NEMESIS II data sets: one identified for REACH patients and one de-identified for all patients. In August 2011, an application for database was submitted and we met with the review committee to resolve any issues. The committee approved this application September 2011. Parameters and variables were received in association with that database in November 2011, and a formal request has been made for these new parameters.

While waiting for DHEC's release of the data, we began conducting preliminary analyses of critical time points in the REACH database for benchmarks. Knowing that delays occur prior to the patient arriving at the hospital are the primary contributors to the overall delay in stroke care (leading to worse stroke outcomes and mortality), we began to examine the feasibility of conducting a community-based assessment regarding the public's attitudes/opinions related to this issue with the intent of examining potential interventions. A goal we completed was for the SSRI to connect with colleagues in the Center for Community Health Partnerships, sponsors of the SE VIEW Community Engagement Scholars Program. Together we **created the Community Engaged Assessment to Eliminate Stroke (CEASE) proposal and submitted it to the South Carolina Clinical & Translational Research Institute (SCTR) Pilot Project Program for funding**. Funding was received from the SCTR Institute for this pilot project program and SSRI is involved with CEASE to work with its community partners. This initiative was exploring facilitators and intervention strategies to acute stroke care with Focus Group and Key Informant Interviews in the Georgetown, SC area. This is located in the Coastal Carolina County Region (see **Appendix 6**). **Milestone:** The Community Engagement Program (CEASE) is looking at the results of the data collected as well as preparing for a manuscript submission.

Aim II-D: Use of Alteplase (tPA)

Early analyses indicated that the use of tPA was very low in South Carolina prior to the advent of the REACH MUSC Telemedicine Network (REACH). Currently with REACH, tPA has been given over 600 times since the programs inception in 2008 with the 6 original sites and expanding to 13 sites currently participating (see **Appendix 7**). While these REACH figures are continually impressive, **this aim is focused on comparing use of tPA among non-REACH sites with those that have had REACH for at least 12 months**. For this aim, **we have requested two data sets** from the S.C. Office of Research and Statistics (ORS). The application for data was submitted September 2011 to ORS and the

unrestricted dataset released. However, the linked dataset containing restricted data which is needed to make this comparison was not be released until the research protocols were approved by TATRC on January 25, 2012.

Aim III: Providing targeted stroke, stroke prevention and sickle cell disease continuing medical education (CME) to health providers in the ROI and beyond

This curriculum of approved CME stroke programs was developed by the team and with input from a designated partner in the ROI. SSRI collaborated with the S.C. Area Health Education Center (AHEC) to assess training needs and appropriate use of the South Carolina Health Occupations Outreach Learning System (SCHOOLS) distance-learning network. We continue to use this tele-training system and have had more speaker presentations on stroke. After a good response to this way of presentation and creating enduring materials for stroke the SSRI Stroke CME series (**Table 5**) will continue to be presented across this tele-training network.

Table 5. Stroke CME Training Program Library

TITLE	PRESENTER	BROADCAST DATE	OUTLINE PROGRAM LINKS
The Impact of Ethnicity and Social Determinants in the Management of Hypertension	Jackson Wright, Jr., MD, PhD, FACP	6/10/2013	TBA
Management of DM, HTN and Lipids in the Stroke Patient & Social Determinants of Stroke	Philip Gorelick, MD, MPH, FACP	6/3/2013	TBA
Consideration of Social Determinants in the Clinical Management of Hypertension and Disease	Elijah Saunders, MD Sharon Saunders, MD	4/11/13	http://www.scahec.net/schools/programs/2013.04.11.Social_determ.html
Advanced Acute Ischemic Stroke Care in South Carolina	Aquilla S. Turk III, DO	2/21/13	TBA
Critical Care for Ischemic Stroke	Christos Lazaridis, MD	10/18/12	TBA
Stroke Management for Hospitalists	Christine A. Holmstedt, DO Edward C. Jauch, MD Jeffrey D. Bodle, MD Robert J. Adams, MD	08/01/12	TBA
NIH Stroke Scale Review For REACH Telemedicine	Robert J. Adams, MD	6/14/12	TBA
Childhood Cerebral Arteriopathies	Heather Fullerton, MD	10/25/11	www.scahec.net/schools/programs/2011.10.25.arterio.html
Stroke in Children with Sickle Cell Disease: Past, Present, and Future	Janet Kwiatkowski, MD	10/24/11	www.scahec.net/schools/programs/2011.10.24.ssd.html
Secondary Stroke Prevention: Implications for Healthcare Providers	Robert Adams, MD	07/19/11	www.scahec.net/schools/programs/2011.7.19.secondary.html
Hypertension & Diabetes: Stroke Risks in South Carolina	Daniel Lackland, DrPH	05/10/11	www.scahec.net/schools/programs/2011.5.10.HT_DM.html
Stroke The First 3+ Hours: Initial Management and Implications for the Emergency Dept.	Edward Jauch, MD	04/19/11	www.scahec.net/schools/programs/2011.4.19.HT_DM.html
Diagnosis & Treatment of Stroke: An Application of Tele-medicine	Robert Adams, MD	04/07/11	www.scahec.net/schools/programs/2011.4.7.telemed.html
Optimizing Hypertension Control	Joel Handler, MD	02/15/11	www.scahec.net/schools/programs/2011.2.15.hypertension.html

The team continues the planning and preparing of continuing medical education program for MD's, PA's, NPA's, PharmD's and others. The two completed module series will be titled: Acute Stoke Management (**Appendix 8**) and Social Determinants.

The CME format will continue to be administered in both a traditional, "live" audience venue and across the state utilizing the SCHOOLS distance learning technology. This has increased the breadth of the CME offering by expanding access to the live broadcast to locations throughout the state. Perhaps more importantly, use of the SCHOOLS system allowed the Stroke CME programs to be preserved as enduring materials. This allows health professionals with Internet access to receive high quality stroke-related training and corresponding CME credits at their convenience. **This opportunity is now available to military health professionals too.** **Table 5** offers an overview of topics and provides links to access the programs as enduring materials. Further detail regarding this CME stroke series, may be found by accessing the CME website⁶.

The SSRI team has created specific REACH Site teleconferencing meetings. This allowed the CME group, REACH program manager and administrator to highlight a topic of specific interest to this group of REACH sites. Also, they will be able to review current accumulative data of all the sites using the telemedicine system for acute stroke care. This review will reveal to them their strengths and weaknesses as a whole in order to improve the length of time for stroke consults and care. Also under this education aim, the SSRI team has added an important goal to "**Educate the Next Generation**" (Aim III-E). Mentoring young health professionals and students in the area of stroke and stroke risk reduction adds sustainability to these efforts and may positively impact future stroke programs (**Fig. 5**). These individuals contributed to several poster presentations were responsible for assisting on some publications. Three of our SE VIEW Team member graduated from MUSC's first Ethics Class.

Figure 5. Ethics Graduates



November 19, 2012—Members of the first graduating class of the Fellowship in Clinical Research Ethics were given their certificates at a reception given by the Dean of the College of Medicine in the Colcock Hall lobby. Pictured from left to right: Daniel T. Lackland, Ph.D., Professor in the Department of Neurosciences; Etta Pisano, M.D., Dean of the College of Medicine; Alisha Joyner; Thomas Hulsey, Assistant Dean for Global Education Programs; Angela Malek; Ellen Debenham; Eliza Barnwell; Andrea Boan; Jason Wheeler; Mark S. Sothmann, Ph.D., Vice President for Academic Affairs and

Provost; and Robert Sade, M.D., Professor in the Department of Surgery. Kristen French and Amrutha Baskaran graduated, as well, but were not in attendance.

Milestone: The “Acute Management of Stroke” series for the REACH MUSC sites have been completed and are available to other healthcare providers via online access.

“Strike Out Stroke” campaign, July 16, 2012 (Fig. 6): Charleston Riverdogs baseball game. This is a blood pressure screening event for the public attending the RiverDogs baseball game. The trainees and mentors of the MUSC Stroke Center encouraged the fans of the Riverdogs team to become aware and educated about blood pressure. Over 70 fans participated in having their blood pressure tested. Organized by Daniel Lackland, DrPH and Andrea Boan, PhD.

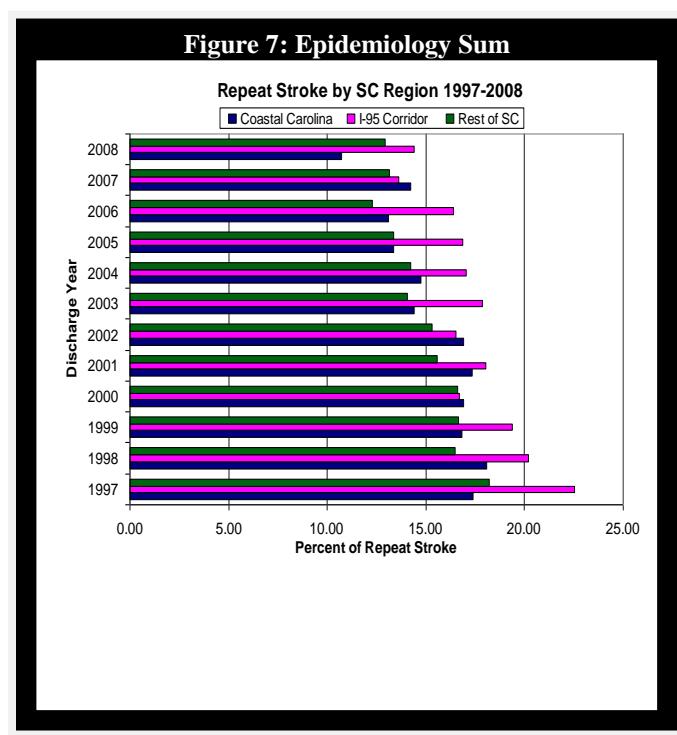
Figure 6. Strike Out Stroke Mentors



Figure 7: Epidemiology Sum

Aim IV: Epidemiology Core

Evolved when early efforts related to Aim I demonstrated: (1) a need to develop Epidemiology Profiles depicting the ROI and (2) the importance of acquiring and maintaining standardized data sets as a common resource for all SE VIEW cores. This Epidemiology group was established under the leadership of SSRI Investigator, Daniel Lackland, DrPH. As noted, this group completed the Aim I by defining and characterizing the ROI and presenting these findings to the SE VIEW team. The group also began to collect a variety of data sets including emergency room, hospital, socioeconomic status (SES) and census data. The team began analyzing these data by ROI, validating the assumption these regions suffer from greater health disparities and reporting these findings to the other SE VIEW cores as requested. An interesting sample of the types of stroke data found in these early summary reports is provided as **Fig.7**, which



shows a history of consistently higher repeat stroke among hospitalized patient residing in the I-95 Corridor as compared to the rest of S.C.

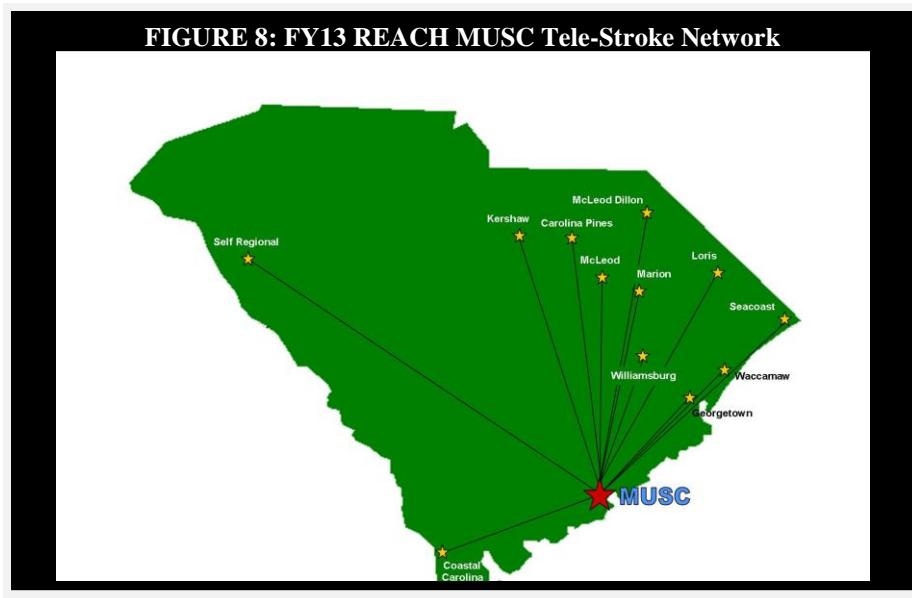
Aim V: Stroke Care

Focuses on an SSRI core responsibility, which is “to address these (stroke) issues by enhancing the REACH telemedicine system.” REACH MUSC is not just a technology, but a robust partnership between South Carolina’s rural and community hospitals and the MUSC Stroke Center; one of only nine JCAHO-designated Primary Stroke Center (PSC) and the only Comprehensive Stroke Center in the state. **SSRI is focusing on three methods of improving access to care by enhancing REACH: (A) site expansion, (B) program expansion and (C) patient care/follow-up.**

Aim V-A: Site Expansion

Refers to a continued expansion of geographic access to expert stroke care achieved by adding sites to the existing REACH Tele-Stroke Network. Currently discussions with potential sites in the Coastal Carolina and the I-95 Corridor Regions are in process. The REACH Tele-Stroke Network currently contains 13 hospitals with 2,031 hospital beds and 379,875 emergency room visits per year (**Fig. 8**). Since its inception in 2008, this network has facilitated over 3,419 consultations, with 604 receiving tPA (**Appendix 7**).

Figure 8: FY13 REACH MUSC Tele-Stroke Network



Data collected from these consultations provides a wealth of materials used in much of this SSRI research. There were two articles published in *Frontiers in Neurology*; “Access to expert stroke care with telemedicine: REACH MUSC”, by Abby Swanson Kazley, PhD and “REACH MUSC: a telemedicine facilitated network for stroke: initial operational experience”, by Robert J. Adams. Both of these publications provide excellent overviews of the REACH program, the network, its technologies and early findings demonstrating the viability of this telemedicine-facilitated network for urgent stroke care. The team produced the REACH MUSC Telestroke Site Update Flyer (**Appendix 9**), which was distributed to the REACH sites with REACH MUSC program updates, program data for the month, recognition of the sites nurses and the available training via the online CME stroke presentations. We continue discussing the possible integration of in-patient coverage via the REACH system with our sites. Also, we are working with Dee Ford, MD on her **Tele-Critical Care Program to Reduce Rural Health Disparities to collaborate on her telemedicine technology and provider education design efforts. REACH Equipment will be upgraded to allow for this program to go into effect.**

Team meetings with REACH MUSC sites emergency department personnel are to review the local Brain Attack Team protocols and identify ways to speed up the consult process for acute stroke patients. We give 45 minute presentations that cover all aspects of REACH MUSC, the impact on access to care in the state of South Carolina, outcomes and compare local site data to overall group data. Includes retraining and updating the staff on use of the telemedicine cart, criteria's and administering tPA. REACH MUSC Site visits during FY13 include:

- **August 13, 2012** – Loris/ Seacoast - Ellen Debenham, RN, Perette Sabatino, RN and Kim Skodack, Genentech Representative
- **September 18, 2012** – Georgetown Memorial Hospital - Stroke Program Meeting. REACH MUSC attended this meeting for Stroke Program staff in Georgetown, Robert J. Adams, MS, MD, Shelly Ozark, MD, and Ellen Debenham, RN
- **October 29, 2012** - Carolina Pines, Educational Training Session, Ellen Debenham, RN McLeod Health, Florence - Educational Training Session, Ellen Debenham, RN
- **December 5, 2012** – Souvik Sen, MD, Palmetto Health's new web-based telemedicine service, REACH, will be available at Lake City Community Hospital. REACH is used for remote evaluation of patients who are experiencing symptoms of stroke. Through a partnership with Palmetto Health and the USC School of Medicine, patients at Lake City Community Hospital in Lake City, SC now have access to the expertise of board certified neurologists to assist in the treatment of stroke
- **December 11, 2012** - Beaufort Hospital – Site Visit for potential stroke services via telemedicine, Robert J. Adams, MS, MD
- **December 17, 2012** - McLeod Health, Florence - Mock Training session, Robert J. Adams, MS, MD, and Ellen Debenham, RN
- **January 4, 2013** - Beaufort Memorial Hospital - Introductory return site visit for telemedicine programs - Robert J. Adams, MS, MD, Edward Jauch, MS, MD, Ellen Debenham, RN, Aquilla Turk, DO
- **March 6, 2013** - Carolinas Hospital System - Marion – Presentations by REACH MUSC Team: Ellen Debenham, RN – Overview of Telestroke Program and Site Data; Dr. Shelly Ozark – Acute Stroke Care; Perette Sabatino, RN – Clinical Stroke Program Management
- **April 22, 2013** - McLeod Loris & Seacoast, Loris, SC. Dr. Robert J. Adams, Ellen Debenham, RN, Kim Skodack, Genentech Representative

Milestone: The technology for the telemedicine program is developing and will be able to offer multiple specialty services to our REACH Sites. An equipment upgrade is underway for the REACH MUSC Sites.

Aim V-B: Program Expansion

A REACH MUSC team led by SSRI Investigator Dr. Robert J. Adams collaborated with several other programs that were interested in exploring the feasibility of expanding REACH into other specialty areas. The team also provided consultative services to others interested in telemedicine but not necessarily in REACH. The Critical Care Excellence in Sepsis and Trauma (CREST) Program was the first non-stroke initiative to successfully expand the REACH platform into another specialty, adding four sites to the MUSC REACH Telemedicine Network. The REACH team continues to support CREST as it evolves. The first combination CREST/REACH site was established at Williamsburg Regional Hospital, with REACH staff offering support at the initial sepsis-training program. The SSRI Team currently will examine the feasibility of expansion into a primary care setting and is working with REACH Health, Inc., to develop a model for REACH Primary Care through their technology (Aim VI-B3).

Aim V-C: MUSC ECareNet Physician Portal

The telehealth program was implemented to allow physicians and hospital staff access to their referred patients' medical records at MUSC; offering continuity of care directly from their community hospital. REACH staff collaborated with the MUSC Physician Liaison Program to introduce the E-Care Net Viewer/Oacis program to our REACH partner sites. The Portal was first introduced to each *new* REACH sites during that site's initial implementation training program, at which time their providers learned how to register for OASIS access. Additionally, the REACH staff provided liaisons with contacts at all *existing* REACH sites so that they might further dissemination program information and registration providers at these partner sites. **Milestone:** An MUSC Stroke Awareness Event was held for the community to learn more about stroke prevention and recovery. Three former stroke patients, who attended the event and had a session explaining what they felt, did and would do different. They shared their current outcome and answered questions from the audience.

The second effort supporting Aim IV-C, we are continuing the development of a **multimedia program which seeks to “Tell the Story” of stroke** by presenting patient and family experiences with REACH and the MUSC Stroke Center. This serves both as a means of documenting qualitative patient care information and demonstrating the actual connection with patients. Audio-video compilation of patient and family stories was developed and is now posted online, as well as available in DVD form for. An ongoing process is to continually collect and disseminate these patient stories depicting actual stroke care experiences. We have been able to have our Public Relations department post these as testimonies on our stroke website.

B2b. Heart Health – Preventive Cardiology Research Center

Director: Melissa Henshaw, MD, Associate Dean for Advocacy and Advancement; Assistant Professor of Pediatric Cardiology; Medical Director of Heart Health

Goals: Analyze resource allocation patterns and prioritize areas of need to deliver preventive cardiology and weight management services to medically underserved children; streamline data management efforts to facilitate flow of information among providers; develop data analysis methods to assess outcomes across cardiovascular risk parameters and co-morbid conditions; extend volunteer involvement and community engagement.

Distinguishing Characteristics: A collaborative network of pediatric heart care providers, working with MUSC's Children's Heart Center, form a unique platform for outreach to rural and other medically underserved children and families with known cardiovascular risk factors such as hypertension, pre-diabetes and dyslipidemia.

Heart Health is both the weight management program of the MUSC Children's Hospital and the preventive cardiology service of the MUSC Children's Heart Center. It is a comprehensive pediatric obesity program with medical, nutrition, behavioral, and fitness components. The program addresses the root causes of cardiovascular health disparities through a multi-disciplinary approach to the treatment of pediatric obesity and its attendant cardiovascular risk factors. Heart Health serves patients ages 2 through 22 who are affected by childhood obesity and cardiovascular disease risk factors such as hypertension, pre-diabetes, and dyslipidemia. Over 90% of Heart Health patients are from traditionally under-served minority families with limited financial means, with approximately 75% of our patients insured through Medicaid. Our Hispanic population has increased from 8% to 32% of our patients during the past year. Almost half of our patients have the metabolic syndrome, and 85% of Heart Health patients have at least 2 cardiovascular risk factors at presentation. Through a series of medical evaluations, one-on-one nutrition education and behavioral counseling visits, group education classes and counseling sessions, age-appropriate fitness sessions, and other related activities, Heart Health teaches children and families how to improve their nutrition, activity, and lifestyle-related behaviors to manage weight and improve cardiovascular risk. In addition to the comprehensive clinical services offered through Heart Health, the Preventive Cardiology Research Center provides a variety of school

and community engagement services and pipeline training activities that are centered on the reduction of childhood obesity and pediatric cardiovascular health disparities through outreach, education, and research.

Administration:

Melissa Henshaw, MD, continues to direct both Heart Health and the Preventive Cardiology Research Center, with guidance from Phil Saul, MD, Director of the Children's Heart Program of South Carolina. Tom Hulsey, ScD, also supports the Preventive Cardiology Research Center, providing critical statistical analysis for core projects. Ms. Sarah Stein functions as our Research Coordinator and Outcomes Specialist. Through collaboration with The Boeing Company, Heart Health has hired additional key team members necessary for program expansion, including Dietitian Molly Jones, RD, Counselor Chrissy Andrews, MSW, and Fitness Specialist Kyle Kelly. Tiffany Williams, DNP, PNP, remains with Heart Health as a faculty member after graduating from the MUSC Doctoral Nursing Program last year, in addition to participating in the SE VIEW Junior Faculty Development Program (JFD).

Clinical Progress:

Heart Health was initially designed to accommodate 10 new patients/month. The program was limited at this level until external support was secured through SE VIEW in July 2010. In January 2011, The Boeing Center for Children's Wellness was developed at MUSC, with Heart Health serving as its clinical obesity program. Boeing has provided matching funds to help develop the range and scope of Heart Health's services throughout the MUSC catchment area. This support has allowed the program to grow from an obesity treatment Stage 2 (structured weight management) model to a Stage 4 (tertiary care) model, as recommended for children's hospitals by the American Academy of Pediatrics. As of December 31, 2012, 75% of Heart Health patients (70% of females and 80% of males) were either actively reducing their BMI (35%) or avoiding further increases (40%). Those who are active in multiple components of the program are over 3 times more likely to reduce their BMI, compared to inactive participants. Heart Health grew by 188% overall from 2010 to 2012 (**Table 6**).

Table 6: Heart Health Growth

HEART HEALTH	2010	2011	2012	Average: 188%
New Visits	127	210	265	209%
Return Visits	543	594	860	158%
Comp. Visits	64	93	130	203%
Group Visits	196	354	340	174%
Fitness Visits	1,964	2,026	3,078	157%
Clinic Visits	496	659	1,108	224%

Heart Health's referrals have increased steadily since expansion funding began, from approximately 11/month in 2010 to 61/month to date in 2013. Heart Health services now include regular 1:1 medical, nutrition, and counseling visits offered weekdays at 3 locations (Children's Hospital, North Charleston Pediatric Specialty Care since January 2012 and Mount Pleasant Pediatric Specialty Care since November 2012); weekly group sessions offered at 2 locations (Charleston and North Charleston); and fitness sessions offered on weekdays in Charleston at The Citadel and on Saturdays in North Charleston.

We have added intensive day camps for the summer of 2013. In the first quarter of 2013, Heart Health received 149 referrals and saw 108 new and 330 return patients, providing 132 medical visits, 438 nutrition visits, 234 behavioral counseling visits, 86 group visits, and 1,099 fitness visits, totaling 1,989 patient encounters.

Scientific Progress:

Pediatric cardiology fellow Shahryar Chowdhury, MD, is conducting his three-year NIH T32 research project with the Preventive Cardiology Research Center on the impact of 3D echo and carotid intima-media thickness (cIMT) measurements in the early detection of left ventricular hypertrophy and atherosclerosis in obese children and adolescents. He received a Career Development Award from the American Society of Echocardiography in 2012 to support further research into health disparities in cIMT findings from the Pediatric Metabolic Syndrome Study (PI: Henshaw). This work was presented at the MUSC Obesity Scientific Retreat in October 2012, and Dr. Chowdhury has recently been selected as a finalist for the Young Investigators Award competition at the American Society of Echocardiography's national meeting June 29-July 2, 2013 (**Appendix 10**).

Tiffany Williams, DNP, PNP is developing her SE VIEW JFD project to provide a faith-based pediatric obesity program at her church, Mount Moriah Missionary Baptist, in North Charleston, SC. Her program will be based on the NIH's "We Can!" curriculum. Dr. Williams and Sarah Stein presented an abstract from the Pediatric Metabolic Syndrome Study (PI: Henshaw) at the 34th Annual Minority Health Conference at the University of North Carolina in 2/13 (see Appendix). Dr. Williams has been selected to attend the Robert Wood Johnson Foundation's New Connections Annual Symposium in June 2013. She was also selected to attend SUNY Downstate's Program to Increase Diversity in Cardiovascular Disease-Related Research (CVD-PRIDE) in July 2013.

MUSC medical student Brielle Weinstein has been selected for the 2013 MUSC Summer Health Professions Program with Dr. Henshaw serving as her faculty mentor. She will complete a 10-week research internship with the Preventive Cardiology Research Center, and will provide an oral presentation on her research project in July 2013, as well as a poster at the MUSC Student Research Day in November 2013. In the coming year, Dr. Henshaw has been asked to serve as site principal investigator for a NHLBI-sponsored Pediatric Heart Network multi-center study on the treatment of dyslipidemia in childhood obesity. Dr. Henshaw achieved board certification from the American Board of Obesity Medicine in December 2012, one of only 16 pediatricians and 191 physicians overall to achieve this certification. She is currently serving on The Obesity Society's review committee for a forthcoming scientific report, "Severe Obesity in Children and Adolescents: Identification, Associated Health Risks, and Treatment Approaches: A Scientific Statement from the American Heart Association".

B2c. SC TeleSupport: Diabetes Management Initiative (Effectiveness of Technology-Assisted Case Management in Low Income Adults with Type 2 Diabetes

Director: Leonard E. Egede, MD, MS, Professor, Department of Medicine

Goals: Long-term: Develop a sustainable system of diabetes management to help low income patients achieve and maintain goals within established treatment guidelines regardless of geographic location. Immediate: Employ info tech to improve patient-provider communications and patient adherence to prescribed therapy.

Distinguishing Characteristics: Widespread penetration of cell phone technology presents an opportunity to employ a technology familiar to most, regardless of socioeconomic status or location. This project will conduct a randomized clinical trial project using CONFIDANT, an inexpensive, off-the-shelf cell phone technology whereby a person/caregiver and a provider can communicate data accurately, and the innovative FORA system, an inexpensive, off-the-shelf health technology with a 2-in-1 Blood Glucose and Blood Pressure monitor, coupled with nurse case management to optimize

diabetes care for low income, rural adults with type 2 diabetes. The target population will be low-income patients served in Federally Qualified Health Care Centers (FQHCs) with poorly controlled T2DM residing in coastal South Carolina.

The project aims to develop a practical and sustainable system of diabetes management that will help low income patients achieve and maintain goals within established treatment guidelines regardless of geographic location. This randomized clinical trial will employ the innovative FORA system, an inexpensive, off-the-shelf, state-of-the-art technology comprised of a 2-in-1 Blood Glucose and Blood Pressure monitor, coupled with nurse case management to optimize diabetes care for low income, rural adults with type 2 diabetes. The primary outcome will be hemoglobin A1c (HbA1c) at 6 months post-randomization while the secondary outcomes will be blood pressure control and quality of life at 6 months post-randomization.

On August 10, 2012, the team received approval to begin recruitment at the Downtown location. At this point in the study, the team had enrolled 74 participants: 31 from Summerville, 3 from Johns Island, and 40 from Enterprise. Twenty-six participants completed the study, and 46 had completed the three-month follow-up appointments. In an effort to increase the number of patients available for recruitment, two clinical sites were added. This increased the number of clinical sites within the Franklin C. Fetter system to five (Enterprise, Summerville, Downtown, Hollywood and Johns Island). Recruitment increased to 100 participants: 31 from Summerville, 3 from Johns Island, 40 from Enterprise, 25 from Downtown, and 1 from Hollywood. Forty-nine participants completed the study, and 50 completed three-month appointments. As in the previous quarters, the majority of the participants were uploading readings regularly, and the nurse was still titrating medications to control abnormal readings.

During FY13, recruitment efforts continued and patient recruitment increased to 114 participants (**Table 7**). To date, 69 participants have completed the study, and 83 have completed the three-month follow-up assessment. The team continues to foster partnerships with the companies that design and develop telemedicine products. Given interests and work in telehealth, the program continues to collaborate with another SE VIEW Principle Investigators. The team is a part of the telehealth working group on campus and will be working with other federally qualified health centers and rural medical centers across the state to establish community telemedicine health initiatives.

Table 7: SC TeleSupport Recruitment

Recruitment Site	FY11	FY12	FY13
Enterprise, SC	40	0	1
Summerville, SC	31	0	0
Johns Island, SC	3	0	0
Downtown Chas.	0	25	5
Hollywood, SC	0	1	8

B2d. Tele-Critical Care to Reduce Rural Health Disparities

Director: Dee Ford, MD, Assistant Professor of Pulmonary and Critical Care Medicine

Goal: Improve management of sepsis by engaging rural hospitals in a telemedicine network.

Distinguishing Characteristics: Demonstrated ability to develop trusting, mutually respectful associations prerequisite to engaging rural community hospitals in a telemedicine network. Partnerships require both concurrence of hospital administration and agreement of senior community practitioners.

Critical care is a specialty devoted to the evaluation and management of patients with immediately life threatening organ system failure(s). Critical care represents high stakes, high cost, acute care provided to patients suffering from a variety of potentially life-threatening conditions. Approximately 20% of Americans will die in or proximal to an intensive care unit (ICU) admission. Nationally, the cost of critical care represents 1% of the gross domestic product and consumes 20% of all health care costs. For many diagnoses, mortality and morbidity is reduced through the use of specialist directed care and by receiving care at higher volume centers.⁷ Several specialties within critical care (trauma surgery and neonatology) have demonstrated that patient outcomes are improved via care at higher volume centers and therefore have established tiered systems of regionalization so that these patient populations can access the needed services and specialists expeditiously.⁸⁻¹¹ Similarly, outcomes among the most common medical diagnoses leading to critical illness - sepsis and respiratory failure requiring mechanical ventilation - are improved through care at higher volume centers and by intensivist directed management.¹²⁻¹⁷ Thus, professional societies have begun calling for a tiered system of regionalization for patients suffering from medical critical illnesses.^{18,19} However, important theoretical and practical barriers exist before this can be accomplished. Barriers include a desire among hospitals and providers at lower volume hospitals to retain their patients, lack of capacity at higher volume hospitals to accept all potentially appropriate patient transfers, lack of intensivist physician staff, lack of ICU ancillary staff, and lack of agreed upon criteria for designation of different levels of care and patient selection criteria for transfer.^{20,21} These and other barriers are likely to be more significant in rural and medically underserved areas.²² Novel, outside-the-box approaches are required. Thus, it is generally conceded that in order to globally improve outcomes for critically ill patients, a combination of inter-institutional collaboration, clinician education, quality improvement efforts, transfer of appropriate patients to higher volume hospitals, and other creative solutions such as tele-medicine programs will be necessary.

The SE VIEW program in tele-critical care, began in July 2010, remains underway with the continued evaluation of the baseline patterns of inter-institutional transfers among critically ill adult patients in South Carolina (SC) with sepsis and respiratory failure as well as associated variation in patient outcomes and has launched the development of the MUSC Critical Care Outreach Program (MUSC-CCOP) which includes a multi-hospital consortium with community hospitals. These programs will improve the care of critically ill patients in partner hospitals' ICUs by improving patient safety and quality of care, implementing evidence-based best practices, offering multi-disciplinary education, and providing 24/7/365 access to MUSC's board certified and experienced intensivists for tele-consultation and patient follow-up.

The project team submitted the continuing review application and received approval in July 2012 from the MUSC Institutional Review Board. The approval was forwarded USAMRMC HRPO and received acknowledgment in December 2012. The following highlights program activity:

- The team recruited Dr. Andrew Goodwin, MUSC Assistant Professor with the Department of Medicine, Division of Pulmonary and Critical Care with a special interest in critical care illnesses. Dr. Goodwin offered guidance and assistance with study implementation and evaluation and collaborated with colleagues on manuscripts. SE VIEW tele-critical care benefits from a research team with experience in telemedicine outreach research projects. Personnel have learned the critical, lengthy, and delicate task required for an inter-institutional study and engaging a rural community hospital into a tele-medicine network – developing a trusting, mutually respectable association.

- Program management, Drs. Ford and Simpson, served as mentors to local Academic Magnet high school student, Nate Silvestri. Under the supervision of Drs. Ford and Simpson, Nate assisted with analyzing de-identified administrative hospital data, completed his senior year thesis project and presented to the SEVIEW team and his high school faculty advisor on February 14, 2013 (**Appendix 11**).
- Dr. Ford participates in collaborative conferences with clinicians at Regional Medical Center of Orangeburg and Georgetown Hospital System, which includes Georgetown Memorial and Waccamaw Community Hospitals cultivating and fostering the relationship with MUSC. Dr. Ford and her MUSC critical care colleagues delivered critical care presentations to over twenty-five staff members at the Regional Medical Center of Orangeburg in June 2012 and to contemporaries at Georgetown Memorial Hospital in July 2012. The components of this collaboration include multi-disciplinary education, integration into MUSC's ongoing critical care quality and patient safety initiatives and telemedicine consultation, follow-up, and real-time availability between MUSC intensivists and site clinicians and patients.
- Financial resources were secured from the South Carolina Clinical & Translational Research Institute for a pilot project that investigates the decision making framework among clinicians at referring hospitals to MUSC's MICU and analyzing administrative data to understand the clinical and economic implications of this transfer practice. The project began in late summer 2012. To date, co-investigator Dr. Jane Zapka gained willing consent from 25% of clinicians and administrators contacted from small community hospitals and conducted key informant interviews that included cognitive pre-testing of a survey instrument. In order to develop a prediction model for critically ill patients who would benefit most from inter-hospital transfer, collaboration with the SC Hospital Association has been established for assistance with contacting administrators, physicians, and nurses at a majority of the SC Lowcountry hospitals. The study team is fostering collaborative relationships with these community hospitals for future intervention proposals. The analysis and comparisons of the qualitative and quantitative data from this study's aims will provide rich information on which to formulate a model of care to improve inter-hospital collaboration and outcomes for patients with sepsis and VDRF and explicate a strategic plan for regionalizing medical critical care.
- Information learned has led the team to expand the scope of this TeleCritical care project to include the goal of providing more critical care services and multi-disciplinary care for SEVIEW's targeted population. This collaborative plan, MUSC Critical Care Outreach Program (MUSC-CCOP), piloted at Regional Medical Center of Orangeburg, Beaufort Memorial Hospital, and AnMedHealth (Anderson) includes multi-disciplinary education shared by physicians, nurses, respiratory therapists, pharmacists, dieticians, and other key ICU ancillary staff, and incorporates MUSC's ongoing critical care quality and patient safety initiatives, including bidirectional data-sharing, protocol sharing, and real-time telemedicine consultation between MUSC intensivists, site clinicians, and patients (**Appendix 12**).

B3. Objective B3: Establish a Community Partnerships and Outreach Program to reduce health disparities.

Program initiatives will provide the foundation for integrated efforts to address chronic disease burden in populations that could provide talented recruits for military service. These initiatives also will develop robust dissemination strategies to maximize adoption of program recommendations. This objective includes six initiatives.

B3a. Lean Team Initiative

Director: Janice Key, MD, Professor and Director of Adolescent Medicine

Goal: Prevent and treat childhood obesity through effective school-based partnerships at the high school level.

Distinguishing Characteristics: The Lean Team initiative is based on an active program providing nutrition education and skills training for students at Burke High School, a Title 1 school with >95% African-American students. The program targets students, teachers and families. Through SE VIEW, the initiative is extending to multiple schools with an overarching goal of prevention and treatment of childhood obesity through individual, family and community change.

Project Director, Janice Key, MD, Professor and Director of the Division of Adolescent Medicine at MUSC, also serves as Director of the Community and Schools arm of the MUSC Lean Team/Boeing Center for Children's Wellness (BCCW) established in 2011. The center focuses predominantly on obesity prevention and establishment of wellness initiatives designed to improve the school health environment and reduce prevalence of obesity. Under the support of SE VIEW the research project, "Understanding and Improving Health and Fitness Knowledge, Attitudes and Behaviors of JROTC Students in Charleston County" yielded some valuable information related to teen weight assessments, health practices, challenges and future needs. The project was designed as a limited intervention study to learn specifically about the nutrition and physical activity habits of 800 teens enrolled in JROTC programs in 11 high schools in Charleston County. Through this SE VIEW supported project, the team sought to understand challenges faced by teens enrolled in high school JROTC to eat well and exercise regularly and to identify strategies that could be employed in a school setting to improve weight status, nutrition and exercise habits. The portfolio approach included: individual assessment of Body Mass Index (BMI) and percent Body Fat (%BF), diet and exercise counseling, focus group sessions and structured interviews and surveys of instructors and evaluation of the JROTC curriculum materials used in the various schools as well as the nature and frequency of instructor training.

MUSC IRB granted us a continuing review in December 2012 that allowed us to continue data analysis, develop surveys and prepare publications. In addition, we received approval on April 16, 2013 for a protocol amendment (v.4) to include an exit survey/structured interview for JROTC instructors. Documentation of the review, amendment and approvals was sent to the USAMRMC Office of Research Protection. This past year, the team completed second assessments of weight status, nutrition and exercise surveys as well as completed the 7 focus group sessions for students and instructors. Program management meets individually with JROTC instructors to share a summary report that contains project background, scope, key findings, best practices, precautions, resources and recommendations. In addition, we are asking each instructor to participate in a structured interview or survey about the strengths and weakness of our project, lessons learned and intended plans for using the knowledge gained during participation in the study. A complete overview of study findings, recommendations and project evaluation will be presented in a final report within the next 6 months.

Stage I: Recruitment, Enrollment and Baseline Assessments:

Status: Collection Completed; Analysis Ongoing

To date we have enrolled and collected baseline data on 806 participants (43% of cohort). 788 students and 18 JROTC instructors completed baseline assessments. Consultants were hired to assist with data collection and individual counseling. Data analysis of the entire cohort plus individual school data is complete for the lifestyle surveys but further analysis is pending for the weight status assessments of BMI versus % Body Fat. Demographic, nutrition and exercise habits and weight status based on BMI and % Body Fat were presented in the June 2012 annual report. Adult participants were classified into three categories: Healthy, Overweight and Obese based on their BMI²³ (**Tables 8-9**). Healthy was defined as BMI 18.5- 24.9; Overweight defined as BMI of 25.0-29.9; Obese I as BMI 30.0-34.9; Obese II as 35.0-39.9 and Obese III as BMI >40.0. Age-Adjusted Body Fat Percentage Recommendations for adults are divided into 4 categories: Underfat, Healthy, Overweight, and Obese.²⁴

Table 8: Assessment Results (Women)

Age (Yrs.)	Underfat	Healthy Range	Overweight	Obese
20-40	Under 21%	21-33%	33-39%	Over 39%
41-60	Under 23%	23-35%	35-40%	Over 40%
61-79	Under 24%	24-36%	36-42%	Over 42%

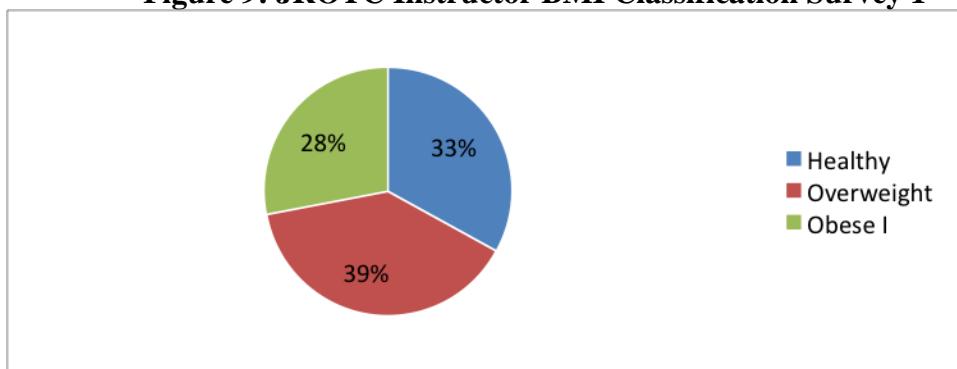
Table 9: Assessment Results (Men)

Age (Yrs.)	Underfat	Healthy Range	Overweight	Obese
20-40	Under 8%	8-19%	19-25%	Over 25%
41-60	Under 11%	11-22%	22-27%	Over 27%
61-79	Under 13%	13-25%	25-30%	Over 30%

JROTC Instructor Results: There were 18 teachers who participated; 94% were male, 6% female (1 black female). Of the males, 65% were white, 29% black, and 6% Hispanic (**Table 10**). The mean age was 53.3 years (± 5.3). ANOVA found no difference in mean BMI by race. Instructors when classified by BMI 67% were Overweight/Obese (**Fig. 9**).

Table 10: JROTC Instructor Results

JROTC Instructors (n=17)	Mean BMI
White	29.0 (± 5.1)
Black	26.1 (± 2.5)
Hispanic	NA

Figure 9: JROTC Instructor BMI Classification Survey 1

Percent Body Fat by BMI classification correctly identified the adults as Healthy, Overweight or Obese (**Table 11**). Analysis of variance showed significant differences in Mean % BF between obese and healthy teachers ($p=0.01^*$). Further analysis of Predictive Positive Value (PPV) of BMI to % Body Fat is pending.

Table 11: JROTC Percent Body Fat BMI Classification

JROTC Instructors (n=18; mean age=53.3 yrs.)	Mean %BF
Healthy*	20.4 (± 4.9)
Overweight	26.4 (± 5.7)
Obese*	31.8 (± 5.1)

Body Mass Index for children for ages 2-20 years (**Table 12**) is calculated the same way as adults but the values are compared to those of other children the same age, known as the Z-score. BMI percentiles are used to categorize children of the same age and sex.²⁵ These percentiles (**Table 13**) are categorized into Underweight (< 5th), Healthy (5th-84th), Overweight (85th-94th), and Obese (>95th).

Table 12: BMI for Children Ages 2-20 Yrs.

Student Survey 1 Group (n=785)	%Healthy		%Overweight/Obese or Overfat		P-value*
	BMI	Body Fat	BMI	Body Fat	
Total	44%	61%	56%	26%	
Boys*	49%	53%	51%	23%	*P<0.05 for both BMI and %body fat
Girls	40%	67%	60%	30%	
AA*	41%	57%	59%	27%	*P<0.05 for both BMI and %body fat
White	55%	67%	45%	24%	
Hispanic	24%	65%	76%	30%	
9th Grade	47%	60%	53%	28%	
10th Grade	44%	66%	56%	25%	
11th Grade	42%	58%	58%	24%	
12th Grade	42%	55%	58%	26%	
Exercise <3 days**	43%	60%	57%	31%	**P<0.05 for % body fat

Table 13: Percentile Categories for Children Ages 2-20 Yrs.

BMI	Body Fat %	Weight Status
<5%	<5%	Underweight
5-84%	5-84%	Healthy
≥85-94%	≥85%	Overweight
≥95%	≥85%	Obese

* No separate categorization for overweight or obese

The team determined that BMI as a single measure of weight status in adolescents may not accurately reflect obesity defined as “Overfatness”. Preliminary analysis led us to suspect that many of the students measured were classified as Overweight and Obese despite the fact that they did not appear to be Overfat nor did they perceive themselves as Overfat on our lifestyle survey. The team measured the % Body Fat of our student subjects and found much overlap of Body Fat values within BMI categories for Healthy, Overweight and Obese. We had trouble finding standardized tables for % Body Fat ranges in youth. We examined this overlap data and looked at sensitivity and specificity of BMI: %Body Fat and calculated the Positive Predictive Value (PPV) of BMI relative to % Body Fat (**Table 14**). Our students were classified into weight status categories by % body fat percentiles based on data from a Texas study with a similar age and gender cohort:²⁶

- Agreement between weight classification using BMI compared to body fat was best for the healthy category (57-81%), followed by obese (51-63%), and lowest for overweight (0-9%), depending on subject variables.

- BMI is a sensitive test for diagnosis of overweight/obesity (sensitivity=0.975) but not very specific (specificity=0.54) with a low positive predictive value (0.48). See **Fig. 10**.
- The positive predictive value of BMI as a test to diagnose overweight/obesity decreases when BMI % is >75 to <95 (**Fig. 11**).

Results indicated that at mid range of BMI percentiles (75th-90th) the PPV was markedly poor, 0.02 compared to 1.0, which would be perfect agreement. Our plan is to do further analyze of the data by gender and race to see if additional differences or agreements can be found.

Table 14: Sensitivity, Specificity and Positive Predictive Value (PPV) of BMI in Diagnosis of Overfat (Overweight/Obese)

	Positive Test (Overweight/Obese BMI)	Negative Test (Healthy BMI)
Disease (Overfat % Body Fat)	195	5
No Disease (Healthy % Body Fat)	208	245

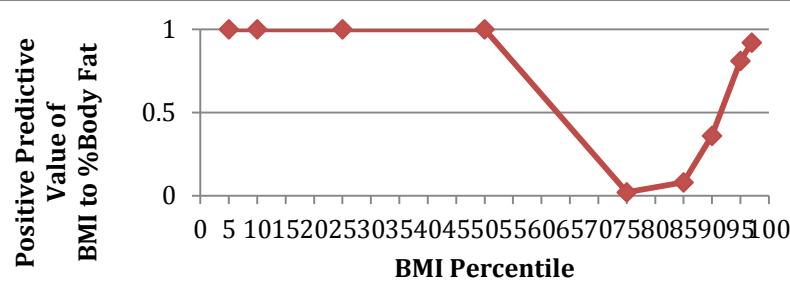
Figure 10: Sensitivity, Specificity, and PPV of BMI in Diagnosis of Overweight/Obese

$$\text{SENSITIVITY} = \frac{\text{True Positives}}{\text{True Positives} + \text{False Negatives}} = 0.975$$

$$\text{SPECIFICITY} = \frac{\text{True Negatives}}{\text{True Negatives} + \text{False Positives}} = 0.54$$

$$\text{POSITIVE PREDICTIVE VALUE} = \frac{\text{True Positives}}{\text{True Positives} + \text{False Positives}} = 0.48$$

Figure 11: PPV of BMI to % Body Fat



Stage II and III: Repeat Assessments and Focus Group (FG) sessions

Status: Completed

- **Weight Status and Nutrition and Physical Activity Questionnaires**
 - Second assessment data on 489 students (62% of enrollees) from 4 schools (1 urban, 1 rural, 2 suburban) and 17 instructors (94% of enrollees) were completed. Second survey results for Instructors are pending. Average time between surveys was 163 days (± 34.8 , range 89-405 days). There were no significant differences in gender or ethnicity between Survey 1 and Survey 2 for students. See **Table 15**.

Table 15: Second Assessment Data - Student Ethnicity and Gender

Students Ethnicity & Gender	Survey 1 (n=784)	Survey 2 (n=489)	Survey 1 (n=784)	Survey 2 (n=489)
	Males	Males	Females	Females
Black	35%	38%	65%	62%
White	74%	74%	26%	26%
Hispanic	35%	45%	65%	55%
Other	47%	65%	53%	35%

- Mean BMI's for Survey 2 were lower compared to Survey 1 [Mean BMI S1 = 24.5 (± 6.0); Mean BMI S2 = 24.1 (± 5.4)]. The BMI data was not normally distributed, so sign rank tests were used to determine whether the measures from survey 1 and survey 2 were different. The mean and median difference between BMI-1 and BMI-2 was 0.25. This was statistically significant, $p<0.0001$. In addition, compared to Survey 1 results the classification of weight status based on BMI percentiles showed a higher percentage of Survey 2 students (57% versus 56%) were Healthy and fewer (23% versus 24%) were Obese. Further analysis is planned to compare first and second survey body fat percentages. See **Table 16**.

Table 16: Second Assessment Data – Student Mean BMI

Students BMI	Survey 1 n=784	Survey 2 n=489	
Mean +std	24.5 (± 6.0)	24.1 (± 5.4)	P<0.001
Healthy (10th-85th)	56%	57%	
Overweight (>85th)	20%	20%	
Obese (>95th)	24%	23%	

- Nutrition, exercise, screen time and physical activity surveys (5-2-1-0 score) for all students regardless of weight category showed: No significant differences. Students still consumed inadequate servings of fruits and vegetables, exceeded 2 hours a day of screen time, failed to meet recommended minutes of daily physical and consumed too many sugared beverages. These results could be affected by readiness, which is often a factor in actual behavior change as well as affordability and access to foods and beverages²⁷. Students indicated in the focus groups that better food choices were needed in schools and that healthy foods were not readily available and were often more expensive than processed or fast foods. See **Table 17**.

Table 17: Second Assessment Data – Student 5-2-1-0 Behaviors

Students 5-2-1-0 Behaviors	Survey 1 (n=784)	Survey 2 (n=489)	P-value*
5 or > servings of Fruit/Vegetables per day	52 (7%)	9 (6%)	NS
2 hours or < of screen time	213 (27%)	128 (26%)	NS
60 minutes/day exercise	306 (39%)	206 (42%)	NS
No sugared beverages in past 7 days	28 (4%)	18 (4%)	NS

*p-values based on paired t-tests of means

- Student perceptions of their weight status did not significantly change between Survey 1 and Survey 2 (**Table 18 & 19**). Students in the Healthy BMI category more accurately described their weight than their Overweight counterparts; lending more credence to the disagreement in BMI versus Overfatness in the mid-range of BMI (75th-90th percentile) results in **Table 17**.

Table 18: Self-Described Weight Status – Survey 1

BMI Category	Very Underweight	Slightly Underweight	About the Right Size	Slightly Overweight	Very Overweight
Healthy	2%	23%	69%	5%	0%
Overweight	0%	7%	76%	15%	2%
Obese	0%	2%	29%	56%	12%

Table 19: Self-Described Weight Status – Survey 2

BMI Category	Very Underweight	Slightly Underweight	About the Right Size	Slightly Overweight	Very Overweight
Healthy	2%	20%	71%	7%	0%
Overweight	0%	2%	84%	14%	0%
Obese	1%	2%	29%	55%	14%

- There were no significant differences found in what students were trying to do about their weight between Survey 1 and Survey 2, although in Survey 2 more of the students indicated they were trying to lose weight (**Fig. 12 & 13**).

Figure 12: What Students Are Doing About Their Weight (Survey 1)

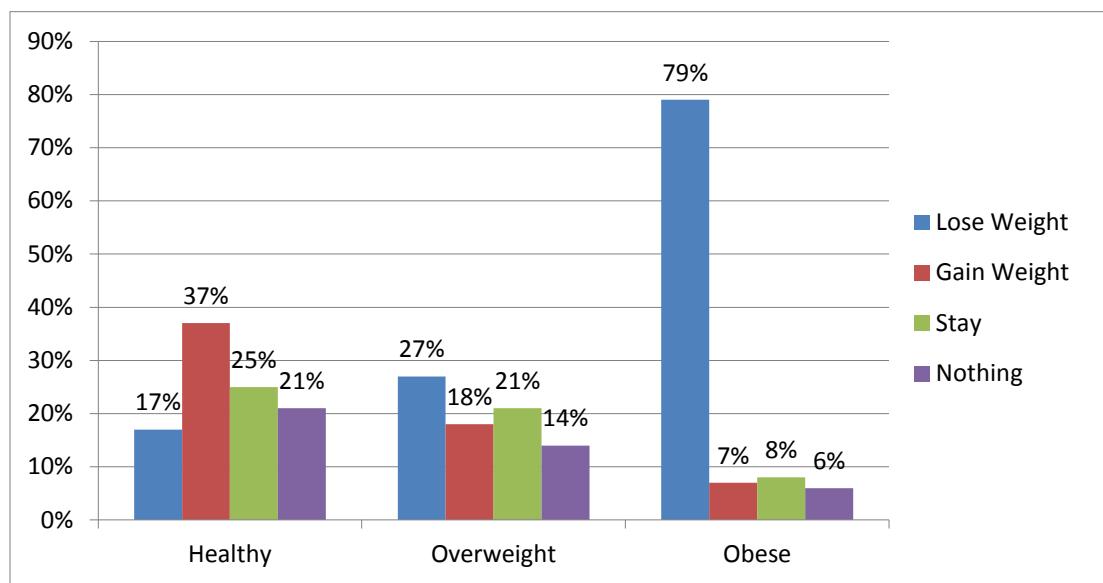
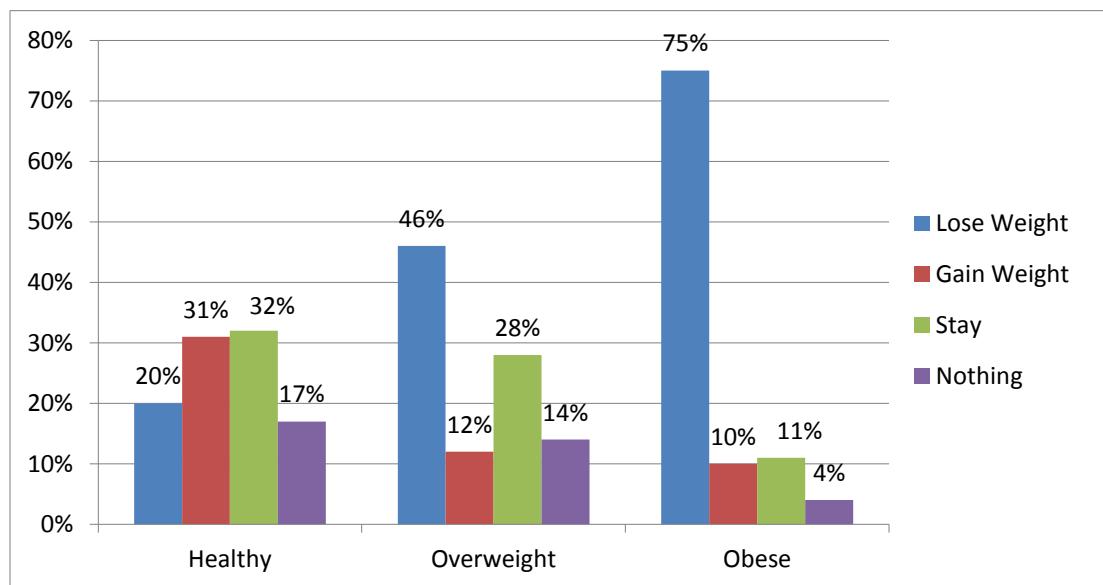


Figure 13: What Students Are Doing About Their Weight (Survey 2)



- Focus Group Outcomes

Consultants were hired for FG facilitation, transcription and analyses. All 7 FG sessions have been completed and key findings were:

- Instructors
 - Committed to promoting healthy behaviors to students
 - Most strive to “lead by example”
 - Would like additional training in Nutrition, Health Education and Physical Education
 - Some service branches update textbooks or send supplemental curriculum but offer little/no actual training
 - Inquired if they could attend PE, Health Education professional development (PD) days at their school

- Expressed need for better food choices at school
- Students
 - Joined JROTC for wide variety of reasons
 - Most enjoy the nutrition, physical activity curriculum but not enough
 - Want nutrition education activities they can relate to that are meaningful/personal
 - Want nutrition counseling/fitness evaluation by someone other than instructor
 - Expressed need for gender-specific Physical Training and Physical Activity
 - Expressed need for better food choices in schools
 - Indicated healthy food wasn't always available and was too expensive

Stage IV: Exit Surveys, Evaluation and Recommendations

Status: In process

Exit surveys/structured interviews have been completed in 9 of the 11 high schools and are pending analysis.

SE VIEW Collaborations and Synergy

- Dr. Jimmy McElligott (Telemedicine)
 - Advice and technical assistance on data/project outcomes
 - school-subcommittee member
- Dr. Carolyn Jenkins (Community Engaged Scholars):
 - Community Engaged Scholars Grant/Course
 - Partnering with CCSD to collect and catalogue BMI data into a central data base
 - Obesity Summits
 - October 2012- Scientific Retreat-
 - December 2012- Community Forum-Conquering Tri-County Obesity
 - Collaborative expansion of BCCW Wellness Checklist/Initiative to Bamberg County School District
- Dr. Melissa Henshaw and Janet Carter (Heart Health)
 - Boeing Center for Children's Wellness
 - Formed 3 years ago to include prevention and treatment of obesity in clinical as well as community and schools settings
 - Website development and promotion of health & wellness with links to each others initiatives/events/resources
 - Numerous Health Fairs in both community and schools
 - St. Stephens Elementary in Berkeley County
 - First Day Festival for CCSD students and families
 - CRBR Expo- developed nutrition games to identify best fast food and sugared beverages
 - "Fam Jam"- Children's Museum of the Low Country attended by 2000 people- same games as CRBR expo as well as distributed literature about Boeing Center programs, SE VIEW and Eat Smart Move More
 - Bridge Walks
 - Promotion of our Bridge Walks
 - McFadden Family- HH participants who learned of our walks via HH and brought their son who is in treatment as well as 5 other family members- while on the bridge they connected with Lean Team and a young AA boy who had lost 60 pounds, graduated high school and eligible to enroll in Merchant Marines (we provided letters of recommendation)- example of mentoring, encouragement and life change as result.

- Dr. Scotty Buff (Jr. Doctors of Health)
 - Schools sub committee as a forum to that met bi-annually to discuss project experiences, evaluation, goals and methods, and areas of overlap and synergy.
 - Overlap/Reinforcement of Health and Wellness in Burke High School JROTC students
 - Promote and link their JDOH to our Boeing Center School Wellness Checklist by offering nutrition/physical activities to schools and schools in turn earn points on our checklist
- Dr. Marvella Ford and Dr. Debbie Bryant (Compass Healthy Communities Project-Hollings Cancer Center)
 - Linked with Eat Smart Move More to provide nutrition and physical activity table and information to 100 participants at community conference titled “Laughter, Living and Lifestyles”.
- SE VIEW Administrative CORE
 - Provide photos/stories for the Website
 - Advice
 - Organized a meeting for us with Representative Clyburn’s staff in Wash, DC and with Pentagon officials
- Dr. Pat O’Neil and Josh Brown (MUSC Weight Management Center)
 - Linked their LEAN program with appropriate contacts in the schools and distributed their materials to the school wellness contacts

Non-Research Activities

This year we expanded our efforts to improve the health of children, families and teachers in schools and communities to include two additional school districts in Berkeley and Dorchester Counties both of which have higher than state and national averages of obesity rates. We used our partnerships with South Carolina DHEC Lowcountry (formerly Region 7) and Trident United Way to expand our wellness initiative to Berkeley County School District (BCSD) and Dorchester 2 County School District (D2SD). We conducted our Boeing Center School Wellness Checklist in 16 of the 41 BCSD schools (39%) and in 10 of the 21 (48%) D2SD schools. These partnerships have led to policy, systems and environmental changes that are positively affecting the health of the school-based community. Highlights include:

- Training school and community partners on BMI measurement, and provision of age-adjusted BMI charts to improve the quality of BMI data collected by the schools.
- Participating in an MUSC/SCTR Community Engaged Scholars training with CCSD to evaluate our wellness checklist initiative and assist in the collection of and storage of BMI school data into a single database housed at CCSD.
- Maintaining a website, Facebook page and Twitter accounts that provide a myriad of resources for teachers, physicians, adults and children that encourage continued commitment to healthy behaviors.
- Continuing a partnership that resulted in a 3-year broadcasting campaign involving five local radio stations to improve the exercise and eating habits of local residents.
- Establishing a new partnership through Eat Smart Move More Charleston Tri-County with a local TV network (WCSC-channel 5) to promote healthy eating and active living to the community.
- Supporting 72/88 (82%) of CCSD schools, 16/41 (39%) of BCSD schools and 10/21 (48%) of D2SC schools to implement policy and environmental changes at both the district and individual school level.
- Continuing a “Doc Adopt” programs that trained and paired 85 physicians with 89% of CCSD schools and will be expanding the program to D2SD in August 2013.

- Continued a School Lunch Improvement Initiative by working with CCSD to develop healthier Ala-carte foods resulting in the piloting of fruit and vegetable smoothies and yogurt parfaits.
- Continue distribution of a monthly health newsletter highlighting bridge walk activities and encouraging healthy eating and active living to approximately 500 area residents (Appendices).
- Offering a CDC School Health Index Training in collaboration with SC Department of Education, June 2013
- Changed our weekly bridge walking from weekly to monthly. This year, the community miles walked increased by 6,222 miles and cumulative miles since November 2007 total increased from 33,523 to 39,745 miles.
- Continuation of an active living initiative for teachers by partnering with Coastal Community Foundation to support the training and participation of 160 school employees in CCSD, BCSD, D2SD as walkers/runners in the 35th annual 10K Cooper River Bridge Run.
- Individual Assessment: BMI Collection in Schools
South Carolina Model School Wellness Policy recommends that schools measure BMI's in fifth grade, eighth grade and once in high school for Fitness Gram reports.²⁸ These measurements are conducted by physical education teachers and school nurses. We are continuing our effort to assist schools with BMI collection since learning two years ago that BMI measurements were often inaccurate because schools lacked quality, reliable equipment, students were often not asked to remove shoes, extra layers of clothing or contents of their pockets prior to height and weight measurements, and some schools were not using age-adjusted BMI charts in their measurement collection. The website is regularly updated with relevant resources, (www.musc.edu/leanteam) and a link is provided to all of our school district partners. We assisted CCSD in collecting follow up measurements on 1300 students in their 8 PEP grant schools. In addition, we attended training for an online version of the Fitnessgram© and applied for a mini-grant through MUSC's Community Engaged Scholars program with CCSD to capture BMI data in a single data base housed within the school district.
- Website/ Social Networking
The project team continues to update the website, www.musc.edu/leanteam.
- School Cultural/Environmental Changes
 - Our partnership with the Boeing Company continues under our MUSC Boeing Center for Children's Wellness (BCCW-formerly named: Boeing Center for the Promotion of Healthy Lifestyles in Children and Families) We applied for and received additional financial support for the next 18 more months to continue and expand our school, community and hospital based wellness initiatives aimed at the prevention and treatment of childhood obesity.
 - Since the CCSD Superintendent mandated that all schools in the district form official "Wellness Councils" the participation rate in our Boeing Center School Wellness Checklist increased 62% from 52 to 72 schools earning wellness awards. We continue to revise the wellness checklist tool based on nutrition and physical activity best practice models and this year are partnering with Alliance for a Healthier Generation (AHG), South Carolina Department of Education (SCDE) and the Healthy South Carolina Initiative (HSCI) to include items on the checklist that will help schools achieve national recognition for their efforts.
 - Established and supported the 2nd Annual Wellness Roundtable Conference by partnering with CCSD to highlight, share and recognize best practice school-based wellness models. This year's format changed to highlight four top schools (3 Elementary and 1 Middle School) that presented lessons learned and success stories. Approximately, 75 attendees representing school nurses, teachers and administrators participated in the event.

- Presented wellness awards in BCSD to 12 schools during a special recognition at a school board meeting in June 2013 for their first year participation in our BCCW School Wellness Checklist Contest.
- In addition, our “Docs-Adopt” program established in November 2010 under the direction of Dr. Janice Key, in her role as Chair of the Coordinated School Health Advisory Council (CSHAC), and in partnership with the Charleston County Medical Society and CCSD continues to recruit and train local physicians to serve as a resource for the school wellness councils. This program led to 95% of CCSD schools having a physician on their wellness council, an increase from 89% the previous year. Plans to train additional doctors in Dorchester and Berkeley counties are in the works for fall 2013.
- Community Outreach
 - The team reduced the frequency of our walks over the Arthur Ravenel, Jr. Bridge from weekly to monthly. This has reduced the number of reported miles but we are not capturing an exact amount of miles since many people email us their miles now rather than show up for the “official walk”. We believe this is evidence that our program has successfully encouraged and supported a lifestyle change that involves a commitment to regular physical activity. We have not surveyed our bridge walker participants since 2009 so perhaps planning to do so in the future would be fruitful. Our walks are still held on Saturday mornings and are free and open to the public. Walkers check in with Lean Team leaders, sign-up to receive the monthly email and newsletter. The newsletter contains photos of participants as well as current BCCW activities, wellness tips and trivia questions. Group and individual miles are logged and cumulative miles are reported. To date, 39,745 miles have been recorded since November 2007. Approximately 500 people are signed up to receive the newsletter- see **Appendix 13** for the most recent publication.
 - An effort to reach deeper into the community with obesity prevention and treatment strategies has led to a continued partnership with a local broadcasting company. The partnership came about through Eat Smart Move More Charleston Tri-County (ESMMCTC)- a local chapter of the state organization. The broadcasting company is committed to encouraging area residents to improve their health. The campaign commitment was increased from 12 months to 36 months of five local radio stations to deliver health messages through on-air broadcasts, social networking media and special events. SEVIEW and other community partners will have an opportunity to contribute their expertise by writing the health messages, appearing as guests and acting as a resource to radio personalities. Listeners will be encouraged to increase physical activity and eat healthier. Information discussed during the broadcasts is updated to the website to serve as resources to the public www.Eatsmartmovemoresc.org. In addition, a local TV network committed to partnering with ESMMCTC to promote healthy eating and active living to its viewers.

Community Synergies/Partnerships

- Charleston County School District partnerships (community capacity building)
 - Shared JROTC study results, provided training and equipment during 2-hour site visits with 11 high schools. Increased awareness of overall district and school wide wellness initiative and connected JROTC instructors and students with their school wellness leaders. Capacitated school to collect/monitor/evaluate BMI/Body Fat data by providing training, a stadiometer, digital scale and hand-held body fat analyzer to the school.
- Sustainability Plan: Engage community partners in the school wellness efforts
 - Established communication/outreach to local community businesses

- Provide a forum (District Wellness Roundtable Event) for businesses to engage and be recognized for improving school health environment
- Continued School Wellness Initiative expansion into other SC counties
 - 72 Charleston County School District schools
 - 12 Berkeley County School District schools
 - 9 Dorchester 2 County School District Schools
 - Provided technical assistance to LiveWell Greenville in Greenville County
 - Co-lead effort to establish a Healthy Schools Network across the state as a forum/entity to share best practices, lessons learned and compile resources (Initial Planning Meeting held May 30, 2013-attended by 23 people from 20 organizations working on implementation of HEAL strategies/policies in schools such as MUSC Boeing Center for Children's Wellness, Eat Smart Move More SC, SC School Nutrition Association, SC DHEC central office and Lowcountry, Southeastern United Dairy Industry Association, Alliance for a Healthier Generation, LiveWell Greenville, and Piedmont Health Foundation.
- Advocacy
 - Unified! A Voice Against Obesity: February 21, 2013 at SC DHEC (<http://www.scdhec.gov/scobesity/>)
 - Increased awareness and engaged leaders and provided testimony to support proposed SC-S 599 Healthy Student Act of 2013 (http://www.yaleruddcenter.org/resources/upload/docs/what/policy/legislation/SC_SB_599_Healthy_Students_Act_of_2013_Shealy_4_11_13.pdf)
 - Met with Pentagon staff and Congressman Clyburn's office to share importance of our JROTC study results and to encourage support of school wellness efforts

B3b. Community Engaged Scholars Initiative (CES)

Director: Carolyn Jenkins, DrPH, Professor for the College of Nursing

Goal: Increase the capacity of academic-community partnerships capable of conducting research in non-traditional settings with mutual ownership of the processes and products.

Distinguishing Characteristics: CES provides training, pilot funds and mentorship for teams consisting of an MUSC researcher and community partner(s) who have collaborative interests in community-based participatory research (CBPR) to eliminate health disparities. CES will help bridge the gap between clinical practice and community health needs.

The Community Engaged Scholars Program (CES-P) is an education and training initiative of the South Carolina Clinical & Translational Research Center for Community Health Partnerships (SCTR/CCHP) at the Medical University of South Carolina (MUSC). This program provides training, pilot funds, and mentorship for research teams, consisting of academic and community partners who have interests in community-based participatory research (CBPR). The goal of this program is to increase the capacity of academic-community partnerships to conduct research with mutual ownership of the processes and products, and ultimately to improve the health of our communities in South Carolina and beyond.

CES-P teams consist of at least one community partner and one academic partner. A community partner is defined as an individual(s) who maintains a primary affiliation, whether employed or volunteer, with a community organization. For the purpose of this program, *community organization* is defined as an organization that:

- Has a documented interest in improving the health of the relevant community (e.g., a mission statement)
- Has a history of serving the health needs and interests of the relevant community.

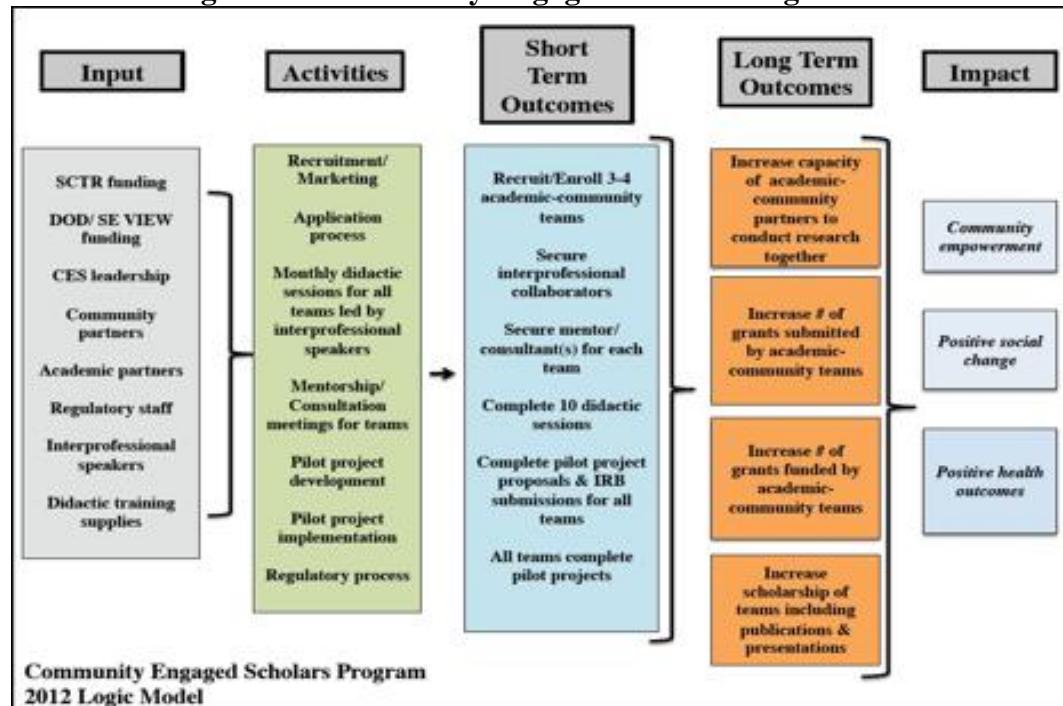
These organizations may include, but are not limited to public schools, community-based organizations, faith-based organizations, and/or advocacy groups. An academic partner is defined as an individual(s) with a faculty appointment in a research area at MUSC.

After successfully completing the program, CES-P participants are expected to meet the following competencies:

- Understand the concepts and components of CBPR
- Apply CBPR principles in the conduct of research
- Incorporate CBPR principles and approaches in grant proposals
- Demonstrate CBPR efforts in a career portfolio
- Communicate with audiences in both community and academic settings about CBPR principles and components
- Implement a pilot CBPR initiative

The CES-P logic model is shown in **Fig. 14**.

Figure 14: Community Engaged Scholars Logic Model



Applications for the fourth cohort were received in January 2013 and the didactic training began in March 2013. The following lists program details for the cohort 4:

- **Didactic Training (Months 0-6)**

During the didactic component of the program, each team attends 15 sessions that address definitions, principles, theories and methods of CBPR, grantsmanship, partnership development and sustainability, evaluation, and career development. Sessions are held every week on Friday for 1.5 hours. Five optional modules may be completed independently online, if desirable. Table 2 shows the didactic training schedule for the fourth cohort (**Table 20**). At the end of the didactic training, teams are asked to submit a full pilot proposal using the National Institutes of Health(NIH) proposal framework. The proposal must also be approved by each team member's Institutional Review Board (IRB) to ensure the project adheres to the ethical guidelines regarding research with human subjects. Each team's IRB application must be approved, and each team's pilot proposal must be reviewed (using NIH

scoring criteria) by an academic and a community reviewer before the pilot funds can be distributed.

Table 20: 2013 Session Schedule

Session	Date (2013)	Topic
1	Friday, March 8	CES Introduction & Overview; CBPR History & Science
2	Friday, March 15	Partnership Readiness Workshop – Part 1
3	Friday, March 22	Partnership Readiness Workshop – Part 2
4	Friday, March 29	Partnership Readiness Workshop – Part 3
5	Friday, April 5	Problem Identificaiton, Community Needs Assessment Research Freamworks & Theory
6	Friday, April 12	Ethics & Institutional Review Boards (IRB)
7	Friday, April 19	Grant Writing Workshop I
8	Friday, April 26	Grant Writing Workshop II
9	Friday, May 3	Feasibility & Pilot Testing
10	Friday, May 10	Formative Research, Intervention Development & Pilot Testing
11	Friday, May 17	Evaluation
12	Friday, May 24	Data Collection, Analysis and Presentation of Data
13	Friday, May 31	Translation & Dissemination
14	Friday, June 7	Academic-Community Partnership Panel
15	Friday, June 14	Group Presentations

- Mentorship (Months 0-18)

Each team meets with a community or academic consultant to help guide the development, implementation, and evaluation of a pilot CBPR project.

- Pilot Funds (Months 6-18)

After the submission, review, and acceptance of a quality pilot grant proposal, as well as IRB approval, each team receives \$10,000 to implement a community-based research project.

NOTE: Pilot grants funds are appropriated from separate grant funding.

Program Evaluation

To evaluate CES-P, a modified RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework has been used, which maximizes the potential for broader dissemination of the program. For the fourth cohort, the evaluation questions and evaluation timeline have been restructured to fit within the RE-AIM framework. Additionally, the design of an in depth evaluation of CES to determine overall success for all cohorts is currently underway. The current design includes:

- Reach

To evaluate reach of the CES-P, we monitor: number/types of participants that: a) inquire about the program (via phone, email, and/or information sessions) and their representative organizations; b) apply for the program and their representative organizations; c) are selected, including organizations, areas of health interest, experience in CBPR, and previous history/experience with CBPR partnerships. Beginning with Cohort 4, we plan on also determining the populations that have been served by CES-P Teams, as well as the geographic areas covered.

- Effectiveness

Effectiveness is reflected at two levels: the dyad level and the program level. In order to assess the effectiveness of each session at the program level, participants are asked to

complete a standardized reporting form, developed using the Research Electronic Data Capture (REDCap) database and survey system, after each session to assess their thoughts on the session content, expertise of speakers, usefulness etc. Participants are also asked to complete a mid-term evaluation, and an overall evaluation of the program to assess knowledge, attitudes, behaviors, usefulness, satisfaction etc. Research electronic data capture (REDCap) (ref.), a web-based database system, was used to develop these evaluation tools [ref.]. We are currently in the process of expanding the evaluation of effectiveness to include an evaluation of the dyad's level of impact on policies, health, processes, the environment, health outcomes, and systems. We also plan on calculating the return on investment for the CES-P. We plan to continue using the existing tracking system of standardized reporting forms and logs and plan to continue our longitudinal follow-up of teams. We will assess the dyad's progress with their partnerships by documenting products such as grant submissions, grant funding, and dissemination activities (local, regional, state, national and international).

- Adoption

In the case of the CES-P, “adoption” is reflected in measures of impact effectiveness at the dyad level. We use Green’s Guidelines for Participatory Research²⁹ to review the CES teams pilot proposals. Secondly, we will have the CES-P teams perform a self-assessment using a 27-item instrument developed by Braun to assess operationalization of the nine CBPR principles in their partnership and CBPR product. This scale does not yield a total score, rather it evaluates the frequency of responses. This scale will be administered to CES-P participants and with other longitudinal follow-up beyond the grant (i.e., annually).

- Implementation

Delivery of the CES-P components is evaluated using a treatment fidelity strategies checklist, including videoconferencing delivery, attendance, online module access, use of mentors, apprenticeship activities, use of SUCCESS Center, SCTR vouchers, and applications for SCTR pilot funds. During the coming months, we will conduct interviews with consulting faculty, partners, and participants on successes, challenges, barriers to the implementation, and recommendations for sustainability.

- Maintenance

Maintenance is reflected at two levels: the dyad level and at the program level. We will monitor if adherence with the program components occurs over time, and if the partners maintain their collaborative working relationship. We will also investigate if either partner or dyad undertakes additional CBPR initiatives post-training, the sustainability of the partnerships/products, evidence of policy change, and social and health impact.

2013 CES-P Teams (Cohort 4)

The CES-P enrolled three new academic-community teams in March 2013. A summary of the teams and their status to date are below.

- Team 1

- Project Title: Lifestyle Improvements for Transplantation Success (LIFTS).
- Community Partners: Tracy Armstrong, CEO/Executive Director, Donate Life South Carolina
- Academic Partner: John Sieverdes, PhD – Post Doctoral Scholar, Medical University of South Carolina College of Nursing.
- Proposed Project: A community-based participatory research approach will be used to develop a wellness program for dialysis patients on the transplant waiting list. The project is divided into two phases. Phase 1 will rely on formative research strategies using key informant interviews with dialysis patients to assess the familiarity, perceptions, and attitudes about current and possible perspectives on using technology

(mobile health/Mhealth) assisted physical activity/fitness activities and dietary behavioral changes. The formative analysis will use qualitative techniques from Grounded Theory to develop themes and codes to describe the patients' attitudes and life barriers to exercise and health before program development. Results from Phase 1 will be used in Phase 2 to develop and iterate a prototype program that includes the assistance of a community advisory group made up of patients, caregivers, and medical stakeholders to use technology in a wellness program with the intention to increase physical activity, resistance training, and improve dietary behaviors. Input from community partnerships and stakeholders is critical to enhance the adoption of the program. A proof of concept trial using 8-10 dialysis patients awaiting transplantation will be completed over a 2 month time period. At issue is the determination of how to better assist the patient in maintaining the medical criteria necessary to remain on the transplant waiting list. These findings will be used to assess the feasibility of this program. Results from this program will educate and serve as an innovative approach to dialysis patient care while improving quality of life and physical function.

- Team Progress: Pilot project proposal submitted 5/31/2013 and approved; IRB application will be submitted by July 1, 2013
- Team 2
 - Project Title: Helping Parents Take Flight: Developing and Testing the Feasibility of an Integrated Parent Training Program in the WINGS Social-Emotional Learning Program.
 - Community Partners: Nicole Lovecchio, Regional Operations Director, WINGS for kids, Inc.; Cheryl Hollis, Senior Program Director, WINGS for kids, Inc.; Julia Rugg, J.D., Chief Program Officer, WINGS for kids, Inc.
 - Academic Partners: Zachary Adams, Ph.D., Postdoctoral Fellow, MUSC National Crime Victims Center; Angela Moreland, Ph.D., Assistant Professor, MUSC National Crime Victims Center.
 - Proposed Project: Children from disadvantaged backgrounds are at significant risk for social/emotional problems, poor mental and physical health, and academic failure, as well as exposure to interpersonal violence and other detrimental outcomes. It is critical to identify, implement, and evaluate effective programs that promote resilience and positive health outcomes in this at-risk population. Two approaches to addressing these challenges—Parent Management Training (PMT) and after- school programs focused on social-emotional learning (SEL)—target child outcomes through distinct but complementary pathways and contexts. Although PMT programs are often effective, engaging parents can be challenging due to various barriers, and many after-school SEL programs, lack formal parenting components. These gaps may limit the impact of these programs. The integration of these two approaches into a more comprehensive program for at-risk youth and families holds great promise for synergistic effects on important health outcomes. The team will draw on CBPR principles to develop an evidence-based PMT program that can be delivered in conjunction with a well-established after-school SEL program [WINGS for Kids, Inc. (WINGS)] that currently lacks a parenting component. The team will then evaluate feasibility, engagement, and preliminary effects of this program. This project will also lay the necessary groundwork for future larger-scale, multi-site trials evaluating the effectiveness of an integrative program.
 - Team progress: Pilot project proposal submitted 5/31/2013 and approved; IRB application will be submitted by July 1, 2013.

- Team 3

- Project Title: Improving Student, Faculty and Staff Outcomes: Evaluating the Use of a School Wellness Checklist in Charleston County Schools.
- Community Partner: Robert Stevens, Ph.D., Coordinator of School Climate, Charleston County School District; David Spurlock, Coordinator of Athletic, Physical Education, Wellness, and JROTC, Charleston County School District.
- Academic Partner: Janice Key, M.D., Professor, Director, MUSC Division of Adolescent Medicine; James McElligott, M.D., Pediatrician, MUSC; Jennifer Moore, MPH, Program Manager, MUSC Boeing Center for Children's Wellness.
- Proposed Project: Obesity has reached epidemic proportions in the US, and South Carolina is among the worst, ranked 8th state in the nation. Local data confirm this with BMI measurements conducted in the Charleston County School District (CCSD) by MUSC's Boeing Center for Children's Wellness finding 60% of teachers and parents and 40% of children overweight or obese. While changing BMI takes a long time, improved nutrition and increased physical activity through school-based prevention efforts not only improve student wellness and ultimately BMI but also affect academic performance, student and staff attendance, and student behavior. Over the past 3 years, the Medical University of South Carolina (MUSC) Boeing Center for Children's Wellness (BCCW) has implemented the School Wellness Checklist (SWC) in 72 CCSD schools as way to stimulate systems change in support of wellness. However, no formal evaluation of the effectiveness of the SWC has been conducted. The team plans to:
 - Determine whether schools that implement the SWC have seen improvement in student and staff attendance, office referrals, and/or standardized test scores at their school, as compared to schools that have not participated.
 - Determine whether school participation in the checklist contest affects the outcomes listed in 1.
 - Engage community members in the analysis and sharing of findings, and in follow-on proposal development.

The team plans to use findings from this evaluation as both background information and preliminary data for a proposal to rigorously test use of SWC and other approaches to stimulate systems changes in schools to support and achieve wellness outcomes. Findings are expected to inform research on possible models and constructs to support and enhance systems change, improve school climate and reduce obesity among students, faculty and staff in grades K-12.

- Team progress: Pilot project proposal submitted 5/31/2013 and approved; IRB application (amendment to current approval) submitted and approved by both the Charleston County School District and MUSC IRB.

2012 CES-P TEAMS (COHORT 3)

The second cohort of the CES-P included 3 academic-community teams. A summary of the team projects and their status to date is below:

- Team 1

- Project Title: Systemic Lupus Erythematosus in the southern North Charleston and Neck areas of Charleston County: Investigation of health disparities related to environmental exposures.
- Community Partners: Herb Fraser-Rakim; Akeem Bell, Environmental Community Action Board.

- Academic Partner: Kristen French, Division of Rheumatology and Immunology, Department of Medicine, MUSC Team Update: In process with in depth evaluation to be completed in next 6 months.
- Team 2
 - Project Title: Applying a Community-based Participatory Research (CBPR) Framework to Address Socio-political Needs of the Alpha-1 Community.
 - Community Partners: Marvin Sineath, Alpha-1 Association; Lucinda Shore, Alpha-1 Association; Jim Quill, Alpha-Net; Donovan Quill, Susan Hill and Barbra Warner, Community member representatives.
 - Academic Partners: Pamela Holtzclaw Williams, College of Nursing, MUSC; Charlie Strange, Alpha-1 Registry, MUSC; Dawn McGee, Alpha-1 Registry, MUSC; Michael Graves, Alpha-1 Registry, MUSC Team Update: In process with in depth evaluation to be completed in next 6 months.
- Team 3
 - Project Title: An Integrated Approach to Diabetes Management and Associated Complications at Community- Based Food Pantry Sites.
 - Community Partner: Carrie Whipper, Palmetto Project.
 - Academic Partner: Carolyn Jenkins, College of Nursing, and MUSC.
 - Team Update: In process with in depth evaluation to be completed in next 6 months.

Additional Education and Training Opportunities

The following educational and training opportunities were offered to CES teams, academic faculty, and wider community from July 2012 to May 2013:

- “What Role Injury Prevention Plays in Transportation”. Phyllis Agran, MD, MPH. APHA Health and Equity in Transportation Series webinar, part 2 of 3. July 11, 2012.
- “What Health Impact Assessments can do for Health Inequities”. Alyssa Auvinen, BS; Karen Nikolai, MCP, MPH; Crystal Myslajek, MPP. APHA Health and Equity in Transportation Series webinar, part 3 of 3. August 22, 2012.
- Consequences of the obesity epidemic. Part 1 of Weight of the Nation four-part video series on obesity, presented by HBO and Institute of Medicine. Follow-up discussion led by Cathy Melvin, PhD, MPH. September 10, 2012.
- “Bridging Research and Reality: Practice-Based Evidence and Evidence-Based Practice”. Michael Potter, MD; Larry Green, Dr. PH, ScD (Hon). September 11, 2012.
- “Choices for Addressing Obesity”. Part 2 of Weight of the Nation four-part video series on obesity, presented by HBO and Institute of Medicine. Follow-up discussion led by Patrick O’Neill, PhD. September 17, 2012.
- “Challenges to Preventing Obesity”. Part 3 of Weight of the Nation four-part video series on obesity, presented by HBO and Institute of Medicine. Follow-up discussion led by Gayenell Magwood, PhD, RN. September 24, 2012.
- “Children in Crisis: Hear their Voices”. Part 4 of Weight of the Nation four-part video series on obesity, presented by HBO and Institute of Medicine. Follow-up discussion led by Janice D. Key, MD.
- “Implementing Evidence-Based Interventions within Healthcare Systems”. Lisa Troyer, BA; Michael Celestin, MA, CHES, TTS; Angela McFall, MS. NIH Cancer Institute Research to Reality Series. October 9, 2012.
- “Taking Action to Achieve Health Equity: Beyond the Affordable Care Act”. Bryan Smedley, PhD. 34th Annual Minority Health Conference 15th Annual William T. Small, Jr. Keynote Lecture, University of North Carolina, Chapel Hill. February 22, 2013.
- “How Engaged Are We? Measuring Community Engagement and Partnership”. Nina

Wallerstein, Dr. PH; Bonnie Duran, Dr. PH. NIH Cancer Institute Research to Reality Series. May 20, 2013.

In addition, online modules are available through the CE (Community Engagement) 360° program. The modules that are currently available are:

- Introductory Level
 - Module 101: An Introduction to Community-Engaged Research
 - Module 102: An Introduction to Community-Based Participatory Research
 - Module 104: Are We Ready? Academic-Community Partnerships in Preparation for CBPR
 - Module 109: Literature Reviews: How to do a Literature Review
 - Module 111: Community Assessments and Problem Identification
- Intermediate Level
 - Module 203: An Introduction to Focus Groups and Key Informant Interview
 - Module 205: Planning Focus Groups
 - Module 206: Conducting Focus Groups
 - Module 207: Conducting Key Informant Interviews

SE VIEW Collaboration

- Dr. Janice Key, MD: One of the CES teams for 2013 is completing an evaluation of the School Wellness Checklist. Additionally, we collaborated with Dr. Key during the Obesity Summit, a program sponsored by the South Carolina Translational Research Institute (SCTR) to address obesity across the Tri-County area. Dr. Key and Dr. Jenkins are leading the workgroup focused on Health Care and Workplace efforts to decrease obesity.
- The REACH Stroke Network is working collaboratively with CES, SCTR and REACH SEACCEED to address stroke in Georgetown County, SC. The group obtained pilot funding from SCTR to implement the Community Engaged Assessment to facilitate Stroke Elimination (CEASE) Study. A collaborative manuscript is currently in draft with the goal of submitting by end of June 2013.

Dissemination of CES-P

Conference Presentations and Publications: A brief overview and recruitment of participants for the 2013 Scholars was presented at the Obesity Summit. Numerous presentations have been presented by the Scholars and will be captured in the in-depth evaluation and reported next quarter. A manuscript titled Training Partnership Dyads for Community-Based Participatory Research: Strategies and Lessons Learned From the Community Engaged Scholars Program will appear in the upcoming July 2013 edition of Health Promotion Practice Volume 14 Issue 4.

Administrative Changes

We hired a new 40% coordinator for the Community Engaged Scholars Program, Romina McCandless, who began work on January 1, 2013. Romina McCandless replaced Brandi White. Additionally, Dr. Jeannette Andrews accepted the Dean's position at University of South Carolina School of Nursing. Dr. Carolyn Jenkins, Professor and Ann Darlington Edwards Endowed Chair are currently Principal Investigator for the CES Program.

B3c. Mobile Outreach Van, Educational and Navigation Health Services for Underserved Populations (MOVENUP)

Director: Marvella E. Ford, PhD, Associate Professor, Hollings Cancer Center,

Goal: Reduce disparities in cancer services access, morbidity and mortality in the I-95 Corridor with a focus on three common cancers occurring to a disparate degree in the SE VIEW regions: breast, cervical and prostate

Distinguishing Characteristics: An I-95 Corridor Health Advisory Committee provides advice and program review, identifies community agencies/health centers to be partners for MOVENUP, and identifies service locations for the mobile unit. Students from three HBCUs participate in cancer education programs and cancer disparities research training.

Cancer is a major public health problem in South Carolina. Current estimates are that 1 in 2 men and 1 in 3 women in South Carolina will develop cancer at some point in their lives. Three of the most common types of cancer death in South Carolina are cervical, breast and prostate cancers. Breast cancer is the most commonly diagnosed cancer among women in South Carolina and accounted for 16% of all cancer deaths in women between 1996 and 2001. Breast cancer mortality is 1.5 times higher in African American women than in Caucasian women in South Carolina. South Carolina ranks 3rd in the US in new cases and 8th in deaths of cervical cancer. South Carolina ranks 3rd in the nation in prostate cancer deaths.

In South Carolina's I-95 Corridor Counties, cancer mortality rates are even higher than in the rest of the state. Our programs focused on the geographic area bounded by the 200-mile stretch of the I-95 highway that crosses South Carolina; in particular; the counties of **Clarendon, Colleton, Dorchester, Orangeburg, Sumter, and Williamsburg**. These are some of the most socially and economically disadvantaged counties in the nation. They experience persistently high levels of poverty and high rates of premature mortality due to undetected, untreated, and under treated chronic disease.

The chronic diseases we addressed are three common cancers occurring to a disparate degree among the residents of the I-95 Corridor counties: breast, cervical, and prostate cancer. The long-range goal of the mobile outreach van, educational, and navigation health services for underserved populations (MOVENUP Program) is to reduce disparities in cancer services access, morbidity and mortality.

The I-95 Corridor represents a vital opportunity and a valuable resource for improving health outcomes and fostering economic development. The state's highest concentration of negative statistics is found here: high rates of chronic health conditions, high unemployment rates and poverty levels, and low rates of educational achievement.

Rationale for Geographic Area Selected: The I-95 Corridor encompasses counties that experience persistently high levels of poverty and high rates of premature mortality due to undetected, untreated, and under treated chronic health conditions. These are some of the most socially and economically disadvantaged counties in the nation.

Rationale for Chronic Diseases Targeted: The MOVENUP Program demonstrates a creative and effective new model of health outreach and service delivery in rural communities. Through the MOVENUP Program, the health needs of a wide range of rural population groups including, but not limited to, low-income populations, minority populations, and populations experiencing chronic health conditions will be met. Disparities in the incidence and treatment of cancer have a significant impact on economic growth and quality of life in South Carolina's rural and minority communities as well as their military readiness.

Task 1. Provide mobile health unit services and patient navigation services.

- Screen for breast cancer, cervical cancer, and prostate cancer.
- Offer patient navigation services to link screened persons who need follow-up care with a "medical home" (via a private medical practice, a federally qualified health clinic, or a rural health clinic).

Task 2. Provide cancer education awareness and education related to nutrition/physical activity to the identified I-95 Corridor counties.

- Use the “Train the Trainer” model to train community volunteers to conduct cancer education sessions in their own communities.
- Use cancer education and awareness community engagement programs to focus on the role of nutrition and physical activity in cancer prevention, improved cancer treatment outcomes, and prevention of cancer recurrence.
- **Create community partnerships with agencies and organizations that share a similar mission, to eliminate health disparities through community, academic and other strategic partnerships in South Carolina.**
- Document outcomes to improve public health, promote progress in the methods of research and education involving community health partnerships, and stimulate action that will improve the health of people and communities.

Task 3. Develop a cancer research-training program with students from the following Historically Black Colleges and Universities (HBCUs): Claflin University, South Carolina State University, and Voorhees College.

- Identify and select students to participate in MUSC’s Summer Undergraduate Research Program (SURP).
- Create capacity and opportunity to conduct prostate cancer research at MUSC.
- Increased number of coauthored peer reviewed cancer disparities manuscripts with Student Fellows.
- Increased number of graduate school applicants.

B3d. Health Empowerment Zone

Director: Deborah Williamson, DHA, CNM, Associate Dean for Practice; Assistant Professor, College of Nursing

Goal: Develop and validate an inclusive academic/community partnership in North Charleston, SC addressing neighborhood-level characteristics related to availability of healthy food and physical environments.

Distinguishing Characteristics: Combines high tech healthcare and ‘high touch’ community engagement, education and empowerment; has dual focus on rapidly growing Hispanic and historically underserved African American populations; creates 360° partnership embracing health practice, contractual arrangements, health policy task forces and research.

The Health Empowerment Zone (HEZ) promotes individual, systems, and policy changes to create and enable a culture of healthy eating and active living thereby reducing childhood obesity and preventing obesity-related conditions. The purpose of the project is to engage the North Charleston community in creating a safe access to a healthy lifestyle that includes healthy eating, active living and a clean environment where people live, learn, work and play. Community members and top-level leaders in all community sectors will collaborate to implement policy and environmental strategies to create sustainable, healthy communities.

Goal 1: To create an inclusive and effective community-academic partnership

Objective 1: *To identify key partners reflecting the diversity, expertise, and community involvement required to promote healthy eating and active living in North Charleston.*

- Healthy North Charleston, a community coalition, was established in partnership with HEZ to address healthy eating and active living. For sustainability after the end of grant funds, the Healthy North Charleston Coalition merged with Eat Smart, Move More (ESMM) in 2013. ESMM is a community coalition supported by South Carolina Department of Health and

Environmental Control (DHEC). Although ESMM includes the tri-county area, the Healthy North Charleston Coalition felt that enlarging the target area would create more synergy in program development, expand grant opportunities, and support more efficient use of resources. The website for ESMM, <http://eatsmartmovemoresc.org/charleston-tri-county/who-we-are/> describes the coalition and its priorities.

Objective 2: *In collaboration with the Achieve grant team, a complete needs assessment of systems, environments, and policies that affect healthy eating and active living to create a community action plan using the CDC CHANGE Tool for North Charleston.*

- The CDC Change Tool was used to monitor changes in the community in the area of policy, systems, and environmental change. A two-year review was completed in August 2012. The assessment included nutrition, physical activity, tobacco cessation, and chronic disease management.
- In addition to the Change Tool, a windshield survey, a convenience store audit for healthy foods, and a neighborhood checklist were completed to inform findings. Significant findings after two years included more policies addressing healthy food options at public events and community organizations such as churches and schools. The establishment of wellness committees in schools, and a wellness checklist developed by Charleston County School District for implementation in the schools were other examples of policy and environmental changes. State physical activity minutes for students enrolled in public schools were already established at the beginning of the grant, but compliance with guidelines has increased in targeted schools in North Charleston. Although communities around North Charleston passed no smoking ordinances, the mayor of North Charleston continues to refuse to support a no smoking policy as a municipal ordinance.
- Chronic disease management activities have been promoted by the faith based organizations within the community. There has been no increase in private industry (weight watchers, gyms, or other exercise classes) in the community. North Charleston remains a community with a significant number of residents live below the poverty level.

Goal 2: Creating a Movement

Objective: *To collaborate with the community (neighborhood associations, schools, worksites, and faith based organizations) to provide a quarterly event promoting healthy eating and active living that may include recreation, education and/ or screening in each of the high school attendance zones in North Charleston.*

- North Charleston Community Activities (813 Participants)
 - Midland Park Community Center, North Charleston
 - Second Tuesdays
 - 2nd Tuesdays of the month health promotion activities were offered at the Midland Park Community Center in North Charleston to provide health, information, selected health screenings (Blood Pressure, Glucose, Rapid HIV and STI screenings, flu shot administration) and resource navigation. Monthly participation ranged from 10-15 participants a month between October 2012 and February 2013 (total participation 69). Lowcountry AIDS Services was unable to continue providing screening after February 2013 and attendance dropped to 2-5 participants. Decision was made to provide health promotion activities in collaboration with other community events and discontinue 2nd Tuesday events due to low participation in the last quarter of this grant year.
 - Flu Shot Clinic (12/12/2012)
 - Information on the importance of adult and child vaccinations was distributed. Flu shots were offered to the North Charleston community on

a first come, first serve basis. There were 10 attendees and 5 who were vaccinated and given information regarding flu and flu vaccines. Low attendance at this event was related to a mix-up on who was responsible for marketing in the community. In the past, activities at the community center were promoted by the City of North Charleston and over 30 people typically attend such an event. Communication errors were discussed and strategies to avoid in the future were outlined.

- Charleston County School District (CCSD)
 - Nutrition Workshop at CCSD Parent Conference (2/23/2013)
 - Program coordinator Anna Patton conducted a nutrition workshop for 18 Spanish-speaking parents for *“The Parents Leading the Way”* Conference that took place at Stall High School in North Charleston. The workshop included current trends in Latino health related to obesity, the food pyramid and how to classify foods into categories and what portion and quantity of food is ideal to eat on a daily basis.
- Abrazos (Sept 2012 – April 2013)
 - Abrazos is a family literacy program sponsored by the CCSD with fifty-five women enrolled. A health promotion program was integrated into the ESOL classes and provided health information on healthy eating and active living, and chronic disease management. Interactive sessions included:
 - Health literacy
 - Importance of regular exercise
 - Information on healthy substitutions for recipes and reading nutritional labels
 - Information on healthy lifestyles, BMI and counseling on BMI implications for health
 - Screening for blood pressure, glucose, cholesterol and BMI checks were provided for interested participants
- Early Headstart (September 2012)
 - HEZ partnered with Early Head Start to screen height and weight for three and four year old children enrolled in the program. Based on the results a health plan will be developed and shared with parents to help children develop healthy habits related to healthy eating and active living. Screenings were scheduled at the following elementary schools in North Charleston:
 - September 9, 2012: Mary Ford (40 children screened)
 - September 13, 2012: Midland Park Primary (53 children screened)
 - September 29, 2012: Burns Elementary and Goodwin Elementary (36 children screened)
- PASOs Program (August 2012 – September 2012)
 - Programs on healthy eating and active living provided to Hispanic families in North Charleston as part of prenatal classes offered at a local clinic. Resources for accessing healthy foods were also discussed (12 participants). Women and their partners are more receptive to learning about healthy behaviors during pregnancy and thus the timing of this information has the potential for long-term effects on family health
- National Latino Aids Awareness Day (October 13, 2012)
 - Health fair at Midland Park Community Center in conjunction with MUSC HHI, Alliance for Hispanic Health, Lowcountry Aids Services, PASOS and services provided by a total of 10 community partners to offer screenings for

hyperglycemia, hypertension, hypercholesterolemia, STD's, HIV as well as counseling on healthy eating active living and health resources in the community. Approximately 200 people attended the event from the North Charleston community.

- Obesity Summit (December 6, 2012): “Conquering Tri-County’s Obesity Epidemic – Challenges, Changes, Choices”
 - PI and program coordinator participated on planning committee for this invitational leadership meeting. 100 individuals from across the Tri-County region were invited to discuss how combined efforts can lead to the implementation of proven approaches and undertake research to identify new approaches to the obesity epidemic facing our communities. The meeting was sponsored by the Community Advisory Board of the South Carolina Clinical & Translational Research Center for Community Health Partnerships (SCTR/CCHP), at the Medical University of South Carolina for community leaders to share evidence- and practice-based approaches to reducing obesity in our communities, explore opportunities to use current community resources to implement these approaches, and plan next steps for community-led action and research. One of the outcomes of the summit was the establishment of a healthy eating coalition to lobby for policy changes at the local, state, and national level. One of the proposals from the conference is under consideration by South Carolina’s Governor. The proposal reported by the Post and Courier on March 9, 2013 makes “*Junk food*”, like chips, candy and soda unable to be purchased with food stamps. The state must request a federal waiver to restrict these purchases, because guidelines for the food-stamp program are set by the U.S. Department of Agriculture. The program would be the first of its kind in the country.
 - SC Governor Hailey supports removing “junk food” from SNAP food options. A series of town meetings were held around the state. The Charleston town meeting was held May 8, 2013 in Sterett Hall on the old Navy Base and attended by approximately 40 individuals. The PI was interviewed by Channel 2 News (WCBD) after the meeting and asked for her comments on the proposed revision of snap eligible foods.
- **Laughter and Lifestyles Event** sponsored by the MUSC Hollings Cancer Center (April 25, 2013)
 - The Program Coordinator worked with two community members to submit healthy recipes for this event focusing on healthy eating. The 2013 Community Compass Project's Laughter and Lifestyles Program featured internationally known humorist and social satirist René Hicks. This event provided a venue to learn about ways to live a healthy lifestyle. A number of presenters spoke about healthy eating, physical activity, and smoking cessation issues. A Healthy Recipe Contest was part of this event. The program coordinator recruited two community members who were interested in submitting their healthy recipes in this contest and attending the event. The recipes submitted came in 4th in the healthy recipe contest. Over 150 people attended this meeting.

Goal 3: To increase availability and accessibility to healthy foods in North Charleston

Objective: *To increase the availability of healthy foods to residents of North Charleston by creating new policies, and new sources of healthy foods.*

- Strategy for Healthy Eating
 - During the fall HEZ program coordinator provided a nutrition lesson for a CCSD family literacy program, *Abrazos*. From this program 25 Hispanic participants indicated an interest in creating a healthy cookbook containing favorite Hispanic recipes. The MUSC College of Nursing HEZ staff worked with the women to develop a sustainable project to produce and disseminate a healthy cookbook with Hispanic

favorite recipes. South Carolina Educational Television (SCETV) interviewed the women on working on the healthy cookbook and it aired on December 4, 2012 as part of a larger program, *The Big Picture* which focuses on the social determinants of health (http://scetv.org/index.php/the_big_picture/). We are partnering with *El Informador*, a local Spanish newspaper, to run a series on the work of the women creating *The Healthy Cookbook*. The newspaper will print recipes and photos/bios on the women who are contributing to the cookbook beginning Summer 2013. *Progress Notes*, a publication of MUSC, has statewide distribution and is interviewing HEZ staff for a feature in fall 2013.

- All of the meetings concerning *The Healthy Cookbook* project took place in the trailers behind Midland Park Primary School in North Charleston with the exception of the January 26th, 2013 meeting, which took place at the Midland Park Community Center on Stall Road in North Charleston.
- Implementation of *The Healthy Cookbook*
 - January 15, 2013: A PASOs nutrition lesson was conducted with 19 of the original 25 women who had expressed an interest in working on *The Healthy Cookbook*. The lesson covered current trends in Latino health related to obesity, the food pyramid and how to classify foods into categories and what portion and quantity of food is ideal to eat on a daily basis.
 - January 26, 2013: A MUSC Registered Dietician (RD) met with 12 of the women to review the recipes they had submitted as part of “*The Healthy Cookbook*”. The RD went through each recipe and recommended substitutions that would make the recipe healthier. The women were able to ask the RD specific questions related to cooking healthy meals for their families.
 - January 29, 2013: A work plan for *The Healthy Cookbook* was completed with 16 of the original 25 women. Through reviewing the recipes, the women decided that they needed to add more vegetarian options to the cookbook. Different women volunteered to either submit more recipes or help with the translation of the recipes. Deadlines were set for the completion of the activities.
 - February 19, 2013: A group of 18 women discussed how the recipe book would be designed and marketed for sale. Different women volunteered for various roles to assist with these activities. After the class, one of the women and the Program Coordinator typed all of the recipes into an electronic file.
 - March 5, 2013: The women decided to sign up to cook one of the revised recipes and bring the following week to class in order to take photos of the recipes. The Program Coordinator met with 25 women to plan the food they would prepare for taste testing and the photo shoot. Written recipes were reviewed for accuracy and healthy substitutions. A strategy was discussed for the display of the food for the photos. Other design strategies for *The Healthy Cookbook* were discussed at the meeting.
 - March 12, 2013: *El Informador* Newspaper, a local Spanish newspaper in Charleston, took photos of the different dishes that 15 women in the group prepared. The women explained the substitutions they made and how they thought the new recipe tasted. *El Informador* has offered to assist in getting *The Healthy Cookbook* to print. SCETV plans a return to do a follow-up story on *The Healthy Cookbook* Summer 2013.
 - March 20, 2013: Program Coordinator met with one of the women at her home in North Charleston to transfer 35 recipes from paper to an online file.
 - March 26, 2013: A template of *The Healthy Cookbook* was shared with the women for review and possible revisions based on input from everyone. A

discussion was held about what the goal should be for number of copies sold of *The Healthy Cookbook*. The goal for the first edition of *The Healthy Cookbook* was set at 50.

- April 23, 2013: Program Coordinator met with 15 women to come up with additional recipes for the cookbook.
- May 1, 2013: Program Coordinator met with the editor of *El Informador* to discuss possible design and printing options and to revise grammatical errors before submitting to a designer.
- May 2, 2013: Recipes were submitted to the designer and are currently awaiting final version.
- May 30, 2013: Program Coordinator met with community member who is the leader for the cookbook project and discussed next steps for meeting with the other members to move forward with expanding *The Healthy Cookbook* to include healthy snacks for kids.

- **Food Insecurity Survey**

- March-May, 2013: Program Coordinator initiated a project that examined food insecurity among the local Hispanic population. Using the publicly available USDA food security survey, preliminary data was obtained from the administration of the survey to 15 Spanish-speaking community members. The survey examined the availability and usage of federally funded food programs among Hispanics. Nationally, as well as locally, the Hispanic population has lower enrollment in these programs that are designed to increase food security. The research project gathered local baseline data in order to collaborate with local agencies to promote enrollment in federal supplemental nutrition programs.

- **Mini-grants for Urban Gardens**

- Clemson Extension and The City of North Charleston, Department of Recreation in collaboration with Healthy North Charleston and the Health Empowerment Zone, installed three community gardens in North Charleston between September 2011 and August 2012. A mini grant provided by Healthy North Charleston provided the financial support for the development of the gardens. These community gardens are located at Minor Crosby, Charleston Farms and Felix Pinckney Recreation Centers. While each of the gardens was designed to fit the needs of the individual community, they are united by the same guiding principles including:
 - Promoting physical activity and quality outdoor experiences
 - Motivating kids to eat more fruits and vegetables
 - Providing opportunities for hands-on learning, inquiry, observation and experimentation
 - Offering active and engaging connections to academics, from science and math to nutrition and literacy utilizing the Junior Master Gardener Program materials and workbooks
 - Building an understanding of and respect for nature and our environment
 - Teaching kids to nurture and care for living things while developing patience
 - Giving children a sense of pride in their accomplishments
- All of the gardens were designed to be site specific, low maintenance and utilize best garden management practices. Designed for educational outreach in the communities they serve, these gardens are jumping off points for adult and youth gardening education.

Goal 4: Create an environment that supports physical activity

Objective 1: By June 2013 to have completed walkability surveys at 5 elementary schools in North Charleston and disseminated the results to school wellness committees, PTAs, and neighborhood associations.

Objective 2: *To facilitate the mission of the school wellness committees in North Charleston by linking the committees to existing resources and building capacity for acquisition of new resources to promote physical activity in school aged children.*

- Walkability Checklist completed for 5 elementary schools in North Charleston (Burns, Chicora, Dunston, Hursey, and Mary Ford) and results disseminated to school wellness committees for development of follow-up action plan.
- April 16, 2013: A lesson was conducted with 25 Spanish-speaking women about the importance of physical activity and the consequences of inactivity.
- Navigating CARTA for low literacy populations (video): A healthy community is one that advocates, promotes, and ensures access to resources. A key ingredient is an effective and efficient public transportation system. Exploring the bus system (CARTA) in the Midland Park community in North Charleston brought about inquiries of safety, knowledge, and readability. Essentially, the question became, how valuable is a bus system that residents do not know how to navigate? Perhaps, instead of being an essential part of the transportation system in the community, the bus has become a barrier to accessing health and community resources due to major issues of language access and lack of knowledge. In collaboration with community members a 6-minute video was made to instruct residents on how to use the bus system, the cost, location of nearby bus stops, and key routes to services. The video is on the desktop of the computers in the computer classroom in the Midland Park Community Center for general use.

B3e. Healthy People in Healthy Communities

Directors: Brent M. Egan, MD, Professor, Departments of Medicine and Pharmacology; Marilyn A. Laken, PhD, Professor of Nursing and Medicine; Frank Clark, PhD, Professor, Vice President for Information Technology and CIO

Goal: Promote awareness of risk factors for chronic disease, behaviors to achieve healthy lifestyles, and access to effective healthcare and necessary medications as keys to lifelong health promotion and disease prevention.

Distinguishing Characteristics: Engages in community dialogues about ongoing needs and resources; provides health education and small grants for local programs; supports health screening/referral for care; assesses and overcomes barriers to obtaining healthcare and medications; strengthens local healthcare delivery network; builds local capacity for sustainability; promotes and assists adoption of electronic medical record (EMR) systems and HIT.

The objective of this project remains consistent with years 1 and 2; to increase preparedness for military and civilian service and pursue the vision of 'Healthy People in Healthy Communities' through awareness, education and outreach efforts. The focal point remains establishing (i) healthy lifestyles and (ii) access to primary healthcare and medications to promote the prevention, detection, treatment and control of major chronic diseases. Achieving this objective involved reaching people where they live, work, worship, learn and receive health care; we focused on collaborative efforts that would allow us to interact with ongoing established activities within churches, schools, worksites and medical clinics or practices.

As a result of collaborative efforts, year 3 finds more people are participating in exercise classes, zumba, walking clubs in their community or at the town or county recreational facility. The town now has a gymnasium that operates 7 days per week – 24 hour that people can pay a nominal fee to be a member and it is well utilized. Churches, worksites, schools and medical clinics/practices have purchased exercise equipment and established a health room for church members, community residents and employees. The local hospital, some worksites and other entities have created a walking trail around the facility to encourage employees to walk. The same groups have introduced nutritional classes, hosted

food preparation seminars using recipes from DASH for Good Health Southern Style cookbook. SC DHEC Region 6 and local hospital conducted a community assessment and should have results by December 2013 that will allow them to better plan for community needs. A county agency is collaborating with the school district to create a smoking cessation program with plans to implement in elementary middle school grade levels. Organizations have started community gardens in Kingstree, Greeleyville following the lead of the Boys & Girls Club (Hemingway) who is now in its third year. In an effort to reduce number of sick days, develop a healthier workforce and lower insurance premiums, the number of worksites that are conducting annual health screening for employees and their families has increased. Many are hiring a nurse to work onsite full time and or part time; the local hospital has been offering to assist them in staffing. One of the most notable programs introduced was providing competitive community grants so local entities could teach healthy lifestyles and screen/refer for early detection of chronic disease, and working with the medical community to coordinate evidence-based approaches to prevention and treatment of chronic disease. More information can be found within the body and attachments of this report. Primary care providers are more aware of the work and programs offered by agencies i.e., SC DHEC, Hollings Cancer Center, Cancer Collaborative, Wise Woman program, Diabetes Coalition that can benefit their patients through education and outreach. The local hospital added a rural health clinic in an attempt to reduce the number of patients using the emergency room as a medical clinic.

The team also met and worked with the Williamsburg County Community Advisory Group and Williamsburg Interagency Council to avoid duplication of services as well as creating and developing new outreach approaches and activities.

While Williamsburg County has a relatively small population, it occupies a comparatively large land area of ~900 square miles. The ~2.4 FTE on this project dedicated to developing relationships with key stakeholders to reach citizens in communities throughout the county where they learn, worship, receive healthcare, and work. One of the major outcomes in Yr-3 was the origin and award of 10 mini-grant applications among the key stakeholder groups, all of which addressed various aspects to improve health in the Williamsburg County. The key groups include various community organizations, churches, medical sites, schools, and worksites:

- **Community Organizations**
 - Williamsburg Regional Boys to Men Club, Inc., Kingstree, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Darin Singleton worked diligently with Mr. Alex Montgomery, Executive Director, Mr. Otis Franklin, Executive Treasurer of Williamsburg Regional Boys to Men Club, Inc. and Ms. LaDine' Gamble, Consultant and Coordinator, Williamsburg County School District Office of Parenting and After School Programs on their application "Let's Get Physical" which was one of the ten selected to receive a "SE VIEW Promoting Good Health in Williamsburg County Across the Life Span" community mini-grant. Ms. Mack and Mr. Singleton advised and assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, answering questions and obtaining appropriate signatures for processing of funds. They also advised them on expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. The grant was designed to work with students attending Greeleyville Elementary School. Mr. Darin Singleton was assigned to serve as Advisor to this program and served as a role model for young men. Through his speeches he motivated the young men to develop good eating habits, increase physical activity, find a medical home that provides quality care and access to medication. He also advocated not smoking and drinking alcohol. The first

quarterly report was due and submitted on October 15, 2012 (see attachment, community grant #2). After Mr. Singleton's untimely demise in November 2012, Ms. Sheryl Mack met with Mr. Montgomery and served as an Advisor for his community grant program for girls, "Girls to Women". Ms. Mack advised and helped them with their second quarterly report that was due January 15, 2013.

- Outcome: The Zumba fitness and nutrition classes have been initiated in Greeleyville Elementary School. Strategies on how to reduce the risk factors that prevent military enlistment are discussed in the nutrition and health classes. Classes such as alcohol and drug use, obesity, stress, hypertension, etc., are facilitated by local agencies. They continue to extend the opportunity for churches, worksites, healthcare facilities and government agencies in the community.

- Williamsburg Home Town Chamber, Kingstree, SC (Mini-Grant recipient)

- Ms. Sheryl Mack and Mr. Darin Singleton worked with Ms. Leslee Spivey, Executive Director on her application "Affairs of the Heart" which was one of the ten selected to receive a community mini-grant from SE-VIEW. She partnered with the Williamsburg County School District Parenting and After School programs coordinated by Ms. La-Dine' Gamble. SE VIEW coordinators (Mack and Singleton) assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, summary statements and obtaining appropriate signatures for processing of funds. They also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. The grant was designed to work with students and parents residing in the Hemingway, Kingstree and Greeleyville areas of Williamsburg County. Ms. Sheryl Mack was assigned to serve as the Advisor for this program. She recruited a former parent liaison as a volunteer, Ms. Joanne Edwards whose primary assignment was to coordinate and organize activities in the designated areas specified in the grant and solicit services and participation from both the county agencies and community. The plan was to host several health events in the area during October and November 2012. Another SE-VIEW team member, Mrs. Patricia Lewis was also engaged and she promoted SEVIEW at the Family Town and Chamber Program. The event was well attended and she provided educational information on eating healthy, being active, cancer, blood pressure, cholesterol and diabetes health. The first quarterly report was submitted by Ms. La-Dine' Gamble on October 15, 2012 (see attachment, community grant #12). SE-VIEW team members (Mack, Singleton and Lewis) would interact with the community coordinators (Gamble, Edwards) every week to receive update and provide feedback and assist in preparation of invitation letters for the health fairs.
- On November 17, 2012, the first "Affairs of the Heart" community health fair was held at C.E. Murray High School in Greeleyville, SC and in which the Williamsburg Regional Hospital was available to participate. The event was attended by 250 residents (males, females, youth and children) ranging in ages 6 yrs. to 80+ yrs.; Caucasians and African Americans. 27 vendors participated; Mr. Darin Singleton was scheduled to participate, but due to his unexpected death on November 12th, Mrs. Pat Lewis effectively represented our SE VEW team Health Promotion – Disease Prevention. Ms. La-Dine' Gamble, Ms. Joanne Edwards and the committee were very successful in coordinating this event and the details of this was included and submitted in the January 15th Quarterly Report. Subsequently, more "Affairs of the Heart" health fairs were held in Kingstree area at Kingstree Senior High School Gymnasium on February 2, 2013 and

Hemingway area at Hemingway Elementary School on April 27, 2013. The SE-VIEW team successfully engaged the Healthcare facilities like Black River Health Care (Hope Health), Palmetto Primary Care and Classy Smiles who offered their services with health and dental screenings, distribution of health and wellness during the health fairs.

- Outcome: Community participation exceeded goal. Reportable outcomes that have resulted from this program are increased knowledge of disease prevention (high blood pressure and diabetes), improved nutrition and via the DASH cookbook recipe book and other nutrition tools, participants were introduced to healthier food preparation and importance of exercising. Strategies on how to reduce the risk factors that prevent military enlistment was a focus of the health fairs. Information on such risk factors as alcohol and drug use, obesity, stress, hypertension, etc., was distributed to participants. The Hemingway area community health fair promoted the district's health initiative Project H.O.P.E. (Healthy Opportunities for People Everywhere).

- Parents Anonymous of SC, Inc., Kingstree, SC (Mini-Grant recipient)

- Ms. Sheryl Mack worked with Mr. Troy Strother, Executive Director on his application, "Rural Education Accelerating Community Health (REACH) Initiative Impacting Families" which was one of the ten selected to receive a SE VIEW Health Promotion – Disease Prevention community mini-grant. Ms. Mack got Mr. Singleton and Mrs. Lewis from the SE-VIEW team for follow-ups and together they assisted with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, answering questions and obtaining appropriate signatures for processing of funds. They also advised them on expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. The grant was designed to work with 25 families residing in the rural Williamsburg County. Meetings will be held at C. E. Murray High School. Ms. Sheryl Mack was assigned to serve as Advisor and Ms. Lisa Potts as the Coordinator to this program. Ms. Mack and Ms. Potts met to chalk out a plan regarding accomplishment, documentation and implementation of the program. Ms. Potts submitted the first quarterly report on October 15th (see attachment, community grant #16). Ms. Mack assisted Ms. Lisa Potts in securing two parent volunteers to serve as Lead Facilitators and Ms. Nicole Giles, Food Service Director Williamsburg County School District to serve as Nutritionist Facilitator for the grant. The goal was to facilitate the work with the families designated in the program and three parent support groups (teen group, parent adult group and children's group) were established that met at the CE Murray site in Williamsburg County. Ms. Potts purchased 60 DASH cookbooks for the program and during November and December 2012, as an Advisor, Ms. Mack had been educating the parents and working with them towards a healthy lifestyle. They participated in the "Affairs of the Heart" community health fair at C.E. Murray High School on November 17th. The quarterly report was due and submitted on January 15, 2013.
- Outcome: All parent support groups (teen group, parent adult group, and children's group) participated in 11 different healthy eating classes and reported mindset changes and healthier meal choices. By making the healthier meal choices, these group members are much more likely to raise healthy children who have multiple opportunities in their lives, including military enlistment. Two adult group members lost weight. The establishment of such trusted groups is a step

forward to get that community by-in and create a new community norm of making healthier eating choices in rural communities like Williamsburg.

- Williamsburg County Disabilities & Special Needs Board (WCDSNB), Kingstree, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Darin Singleton worked with Ms. C. Faye Dozier, Executive Director and Mrs. Brenda Fulton, Finance Director on SE VIEW Health Promotion – Disease Prevention “Williamsburg County Smoking Cessation Prevention and Health Education Awareness” community grant application which was one of the ten selected to receive a community mini-grant. Ms. Mack and Mr. Singleton assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, summary statements and obtaining appropriate signatures for processing of funds. They also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Ms. Dozier partnered with Life Support, Inc., Ms. Elizabeth L. Arthur, Founder and CEO and Williamsburg County School District One. The grant was designed to work with residents of Cades, Greeleyville, Hemingway, Kingstree, Lane and Salters, SC to increase smoking cessation awareness. Ms. Sheryl Mack served as the Advisor to this program attended the monthly meeting for this group and together with Ms. Dozier made a plan for implementation of smoking cessation, prevention and health education. They also partnered with Dr. Yvonne Jefferson-Barnes, Superintendent of Schools for Williamsburg County who was also highly interested in participating since children were beginning to smoke at age 8-9 years of age. The goal was to provide access to education and prevention programs, as it is easier to stop children and youth from smoking than quitting smoking once started.
 - The first training for staff WCDSNB staff was held on December 17th 2013 where Department of Health and Environmental Control (DHEC) provided much of the literature and MS. Mack also recommended incorporation of educational materials from American Cancer Society, South Carolina African American Tobacco Control Network (SCAATCN), local primary care providers, Williamsburg Regional Hospital and MUSC. Two quarterly reports were submitted on October 15 and January 15, 2013(see attachment, community grant # 20). On January 28, 2013, the Smoking Prevention Training workshop was held and Ms. Mack participated along with other WCDSNB leaders to raise smoking cessation awareness. There were 29 supervisors and appropriate staff in attendance, all African Americans, 9 males and 20 females; ages 30 – 65 years of age.
 - Outcome: School board members, faculty and staff; WCDSNB clients; faith-based and community leaders and parents received education about the effects of smoking on hypertension, stroke, heart attacks and other cardiovascular diseases and the importance of nutrition and physical activity. The curriculum also effectively trained parents addressing the consequences and health risk associate with youth smoking. Parents became more aware of the ill-effects of second-hand smoke. In summary, the general awareness for smoking and second-hand smoke was increased which will be beneficial for the Williamsburg residents.
- Kingstree Recreation Department, Kingstree, SC
 - Ms. Sheryl Mack made a special presentation on health promotion – disease prevention at Tomlinson High School Reunion (all classes).

- Vital Aging, Kingstree, Hemingway and Greeleyville, SC
 - Mrs. Lewis continued her efforts from September 2012 until April 2013 trying to raise health awareness with the Vital Aging group. She participated in educational seminars and disseminated health information regarding hypertension, diabetes, nutrition and physical fitness at Kingstree and Hemingway and Mr. Singleton focused on the Greeleyville Center. Mrs. Lewis promoted SEVIEW at all the three Vital Aging Centers. The topic was “Falling Safety” where Mrs. Lewis shared healthy eating tips with the seniors. Mrs. Lewis gave the center an exercise DVD (Go4Life) and brochure from the National Institute on Aging at NIH. The exercises help to improve strength, balance and flexibility. The audience included at the Kingstree Center (22 seniors; 2 Caucasian females, and 20 African American females) and at the Hemingway Center (15 seniors; 2 Caucasian males, 4 Caucasian females and 9 African American females). Mrs. Lewis and Mrs. Segars from Williamsburg Regional Hospital also helped seniors complete a survey, which was part of the mandatory community assessment the hospital is required to complete. Ms. Mack attended meetings and disseminated information on cardiovascular diseases and preventive detection and control measures to the Board of Directors of the Vital Aging group.
- Trio Community Action Organization, Trio, SC
 - Mr. Darin Singleton attended the scheduled monthly meeting of the Trio Community Action Organization on Oct 9, 2012. Mr. Singleton encouraged the group to support programs sponsored by D.P. Cooper Elementary School, a recipient of a SE VIEW mini- grant. He also informed them about the “Affairs of the Heart” community health fair scheduled for Saturday, November 17th. Mr. Singleton has been involved with this organization since April 2010.
- SE VIEW Annual Reception & Retreat, MUSC-Charleston, SC
 - SE VIEW co-investigators, co-workers and community representatives attended the celebratory reception on Oct 18-19, 2012 to mix and mingle with Telemedicine Advanced Technology Research Center (TATRC), Representative Wilbur Malloy and exchanged ideas and updates which was a great learning process.
- Williamsburg County Interagency Council, Kingstree, SC
 - Mrs. Pat Lewis and Mr. Darin Singleton represented SE VIEW at the Williamsburg County Interagency Council Meeting. Mrs. Lewis served as the Co-Chair and Mr. Singleton served on the nominating committee. The Council was made up of businesses, community members, health care workers, school officials, etc. Members discussed the needs of the community and shared ideas on how to improve the community overall. Mrs. Lewis attended the regularly scheduled monthly meetings until the beginning of June 2013 that would include presentations on different topics like health benefits of muscadine grapes, Domestic Violence etc. The council’s purpose was to coordinate and strengthen efforts of Williamsburg County agencies to improve the health and lives of residents. People attended the meeting from various races and gender like Caucasian females, Caucasian males, African American males, African American females and non-Americans.
- In November 2012, Mrs. Lewis participated in the walk hosted by **Williamsburg County Domestic Violence Group, Kingstree, SC**, participated in the annual Angel Tree sign-up hosted by **Williamsburg County Salvation Army, Kingstree, SC** and served as a presenter to the **Kingstree Women’s Connection Group, Kingstree, SC** at their monthly meeting held at the Williamsburg County Housing Authority. In all events she

addressed the importance of developing healthy eating habits (less intake of salt/sodium) and increasing physical activity and disseminated information on healthy lifestyle choices: controlling blood pressure, cholesterol and diabetes. Various African American and Caucasian families attended the events. She also invited the participants to attend the Williamsburg County Diabetes Mini-Conference. Mrs. Lewis also attended the **Alzheimer's Lunch and Learn** at Johnsonville Library, SC. In addition to the signs of Alzheimer, the presenter discussed how beneficial a healthy diet and regular exercise can be to Alzheimer patients. Among the various attendees were four (4) health ministers representing churches in Williamsburg County invited by Mrs. Lewis.

- Williamsburg County Diabetes Coalition, Kingstree, SC
 - Mrs. Lewis, Ms. Nesmith, Region 6 DHEC Health Education Director and Ms. Segars, Williamsburg Regional Hospital worked together to host the Williamsburg County Diabetes Mini-Conference on November 14, 2012. The event was sponsored in partnership with DHEC, Region 6. Mr. Singleton and Mrs. Lewis were scheduled to represent SE VIEW health promotion – disease prevention program but due to the untimely death of Mr. Singleton on November 12th, Mrs. Lewis served as a presenter. She focused on the benefits of using recipes in the DASH cookbook and increasing physical activity as a way to control diabetes, hypertension, cancer and many chronic diseases. 112 people attended: 10 Caucasian females, 6 Caucasian males, 15 African American males and 81 African American females. The age range of participants was from 20 to 65+. 26 participants were members of DHEC Wise Women program and have been identified as being at risk for heart disease.
- Coastal Collaborative American Cancer Society, Myrtle Beach, SC
 - Mrs. Lewis attended the Coastal Collaborative American Cancer Society meeting in Myrtle Beach on Nov. 15, 2012 and collected cancer education pamphlets and flyers to disseminate. She also represented SEVIEW at the monthly meeting of the Coastal Cancer Collaborative on Jan 28, 2013 where she gave an up-date of SEVIEW activities and discussed the possibility for Williamsburg County training on the Cancer Education Guide.
- Williamsburg County Farmers Market, Kingstree, SC
 - Mrs. Lewis represented SEVIEW at the Williamsburg County Farmers Market Meeting from Jan-April 2013. The group discussed the market's opening date for the year, opening new sites in places like Greeleyville, advertising of the market recruiting more farmers and training for farmers to receive GAP certification and organic farming. Mrs. Lewis also represented SEVIEW at an Eat Smart Farmer's Market Strategic Planning meeting. The group worked on a S.W.O.T. Analysis on the strengths, weaknesses, opportunities and threats in Williamsburg County.
- Johnsonville Adult Day Care, Johnsonville, SC
 - Mrs. Lewis represented SEVIEW on 3 occasions at the Johnsonville Adult Day Care in May 2013 and educated seniors on safe exercises, the importance of taking the medication as prescribed and the benefits of physical activity that the center provided. She also disseminated information on diabetes and aging (according to National Department on Aging). 18 seniors (5 males -2 Caucasian males, 3 African American males, 5 African American females and 9 Caucasian females) live at the facility. Mrs. Lewis also gave the center owner and exercise DVD and materials of safe exercises for seniors.

- **Churches**

- Marion Missionary Baptist Church, Salters, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Darin Singleton worked diligently with Mrs. Barbara Brown, Administrator and Mrs. Odell D. Bartelle, Board Member on their grant application “Working Together for a Healthier Lifestyle” that was one of the ten awarded SE VIEW Health Promotion – Disease Prevention community mini-grants. SE VIEW coordinators (Mack and Singleton) assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, summary statements and obtaining appropriate signatures for processing of funds. They also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Thereafter, Ms. Sheryl Mack and Mrs. Lewis assisted Mrs. Brown with the planning and participation for the Church’s health fair hosted on December 8, 2012. Williamsburg Regional Hospital, American Cancer Society, and Arthritis Foundation partnered in the event. The SE-VIEW team disseminated handouts, fliers, DASH cookbooks and other health awareness materials. The goal was to educate the community on the prevalence of threatening medical diseases such as diabetes, heart disease, cancer, and high blood pressure, and then motivate residents to reduce and or eliminate these issues through healthy diet and exercise. Close attention was given to obesity among children/adolescents and adults. The Health and Wellness fair was very successful with 81-signed participants. Quarterly reports were submitted on October 15, 2012 and Jan 15, 2013 (see attachment, #3 community grant).
 - Outcome: Following the health fair, the committee met with participants for feedback on the success of the event. All feedback was positive, and members of the community stated how helpful the fair was for them. Those that had high or elevated BP readings at the previous health fair, noticed a considerable drop in blood pressures, and many lost weight. There were also statements of lifestyle changes and many were motivated to start fitness routines and a healthy diet.
- St. Peters Way of the Cross Church, Andrews, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Ms. Patricia Lewis worked with Mrs. Gloria Nesmith, Director and Bishop Keith D. Nesmith on their community grant application “Parents and Children Exercising Program, (PACEP)” that one of the ten awarded SE VIEW Health Promotion – Disease Prevention mini grants. Ms. Mack and Ms. Lewis assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, summary statements and obtaining appropriate signatures for processing of funds. They also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Partners were DHEC, Parent Anonymous, area churches and community members. Mrs. Pat Lewis served as Advisor. Thereafter, the MUSC SE-VIEW team (Ms. Mack and Mrs. Lewis) assisted Mrs. Nesmith on church community outreach programs, seminars, workshops, speakers and education on healthy eating and food preparation using DASH cookbooks. They also helped the church director with the SE-VIEW quarterly reports that were submitted on October 15, 2012 and Jan 15, 2013. The Church added an additional elliptical machine, mats and exercise balls to their exercise room with the grant money.
 - Mrs. Lewis represented SEVIEW at the Annual health fair at St. Peter Way of the Cross Church on April 7, 2013. 21 people signed in, 5 African American Males

(3 children) and 16 African American Females (3 children). St. James Family Center nurse provided screening: blood sugar, BMI, height & weight, blood pressure. They also provided information on smoking cessation. Mrs. Lewis sold ten DASH Diet Cookbooks.

- Outcome: There was increased awareness towards healthier lifestyle among the participants and in the community.
- Friendship United Methodist Church, Nesmith, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack worked with Ms. Lucretia Pressley, Administrator on her application “Change Your Life with One Step and One Move Ministry” that was one of the ten awarded SE-VIEW community mini-grants. Ms. Mack also helped Ms. Presley with all grant guidelines and reporting. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. The goal was to get their congregation involved in healthier life style choices, provide opportunity to engage in 1) physical exercise twice a week (walking, dancing, etc.), 2) promote nutritional awareness through education and simple resources (presentations and/or classes on healthy eating habits, etc.) and 3) monitor health signs (blood pressure, diabetes, cholesterol, weight gain/loss) quarterly. Community partners such as the Nesmith and Morrisville Concern Citizens, the Smoke House Hunting Group, Nesmith Way of the Cross Holiness Church were invited to participate with members of Friendship United Methodist Church. Other partnerships were Williamsburg Regional Hospital (for screening and evaluation), DHEC (for training, support, resources and information) and MUSC (for information, resource and support). Mrs. Pat Lewis will serve as Advisor to this program.
 - Mrs. Lucretia Pressley, Administrator and the church sponsored a health and wellness fair on October 20, 2012 fulfilling one of the objectives of the community grant. Mrs. Lewis represented the SE VIEW health promotion – disease prevention team at the event and disseminated SE VIEW healthy lifestyle information and spoke to the participants about the community grant. The event began with a 3.5 miles walk. 23 African American females, 1 Caucasian female and 12 African American male participated. Quarterly Report submitted October 15th.
 - Outcome
 - Access to exercise opportunities locally twice weekly. Participants could use alternative equipment to individualize workouts, e.g. Treadmill and exercise bike, Mats for floor exercise and weights and flex band for muscle and strength building. Participants were motivated to do various forms of workout (dancing, zumba, walking, aerobics).
 - In the Health Fair, individuals had time for one on one sessions reporting they were better informed on approaches to improve their use of medication and monitoring of their weight, blood pressure and blood sugar.
 - Community/church members to make changes in food choices for dinners and refreshments towards healthier select.
- St. Paul UMC, Nesmith, SC; IGA Parking Lot, Kingstree, SC
 - During April 2013, Mrs. Lewis represented SEVIEW at their annual health fairs. Mrs. Lewis presented information on cancer education (especially breast cancer awareness and self-breast examination), cholesterol, controlling high blood pressure and diabetes. Mrs. Lewis assisted Williamsburg Regional Hospital with their screening by taking blood pressures and weight.

- **Government Organizations**

- **Williamsburg County Government.** Ms. Mack has been engaged with Ms. Jacquelyn Hailes, Personnel and Benefits Coordinator for county Government since August 2012 in creating a wellness program for health promotion and disease prevention for employees in the 27-29 departments of the county government. In Feb 2013, Ms. Sheryl Mack attended the grand opening for the Office of Congressman James Clyburn Constituent Services where she had an opportunity to network with various county leaders and collaborators on the grants, all of whose joint mission was to motivate people of Williamsburg county to a healthier lifestyle. She had the opportunity to discuss the DOD TATRC SE VIEW program and our specific project within Williamsburg County and the many opportunities we have had enjoyed serving the community.
- **Town of Kingstree - Kingstree, SC.** In Sept 2012-Oct2012, Ms. Mack and Mrs. Lewis worked with the Town of Kingstree and Mrs. Lewis were invited to participate in the Town and Chamber event and the health awareness program for town employees where she disseminated information on the prevalence of threatening medical diseases such as diabetes, heart disease, cancer, and high blood pressure, and how to reduce and or eliminate these issues through healthy diet and exercise.

- **Healthcare Sites**

- Black River Healthcare, Inc., Kingstree, SC.
 - Ms. Mack continued her efforts to connect with Nurse Family Practitioner Helen Phillips of the Kingstree Women's Center and other Black River sites at Greeleyville to determine support of the SE VIEW Healthy People – Healthy Communities and shared information about the BP Tru blood pressure monitor and the process of getting an EMR system. By Nov. 2012, Ms. Mack secured support from the clinical Director for the ability for these Black River sites to absorb new patients if patients are found to be in need of a medical home when participating in a health screening. This would help the numerous small - moderate business owners in Williamsburg County who do not provide health insurance for their employees, sometimes not even for themselves and are happy to learn of a FQHC like Black River Healthcare, Inc. The sites open are Kingstree, Manning, and Bennettsville, SC. They are to receive a BpTru blood pressure cuff.
- Pee Dee SC DHEC, Kingstree, SC.
 - Mrs. Lewis worked with Pee Dee, DHEC from Dec 2012 to May 2013. She represented SEVIEW at the Williamsburg County Cancer Education Guide Training that was sponsored by DHEC and the MUSC Hollings Cancer Center. 23 African American women participated in the training. Mrs. Lewis invited representatives from Hemingway High/Middle School, Hemingway Elementary School, Hospice and churches who attended the training. Mrs. Lewis and Regina Nesmith completed the quarterly report for the Williamsburg County Eat Smart Move More Coalition where Mrs. Lewis served as the Acting-Chair. Mrs. Lewis represented SEVIEW at the Williamsburg County Community Garden website training and the Williamsburg County Eat Smart Move More Strategic Planning meeting. Mrs. Lewis served as a presenter for two, DHEC Region 6, Wise Women classes. Her topic included developing healthy eating habits using the DASH cookbook she also addressed increase of physical activity and access to quality care and affordable medications. Mrs. Lewis, Ms. Nesmith and Mrs. Segars, Community Outreach Nurse, continued their work on the Community Health Needs Assessment Took Kit that Williamsburg Hospital is mandated to complete by the end of 2013. In March 2013, Mrs. Lewis represented SEVIEW at

the Williamsburg County Diabetes Education and Control Program at **SC DHEC Black River Health Complex, Region 6 Kingstree, SC** which included two workshops: Flu Focus and Nutrition. Michelle Harris from DHEC office of Minority Health facilitated the flu workshop and Rev. Jeannette Jordan facilitated the Nutrition Workshop. Thirty-five adults attended the workshop: three Caucasian women, two African American men and thirty African American women.

- From Feb to May 2013, Mrs. Lewis represented SEVIEW at the various events like Partners in Pink Summit, which was held at the **McLeod Hospital, Florence, SC**. Partners from Best Chance Network and MUSC paired in roundtable discussions to brainstorm ways to help women who have cancer. She also participated in Alpha Kappa Alpha Sorority Meeting and Annual Community event of **Williamsburg County Mental Health Facility, Kingstree, SC** where Mrs. Lewis presented information on high blood pressure. The event was to honor the courage of patients who continued their efforts for good mental health. Maintaining a healthy diet was stressed. Patients, their families and community members attended the event.
- Hollings Cancer Center, MUSC, Charleston, SC.
 - In Jan and Feb 2013, Ms. Sheryl Mack worked with Ms. Juanita Brunson, Program Coordinator Cancer Control, Prevention and Outreach to plan for hosting a cancer education program for Williamsburg County.

- **Schools**

- C.E. Murray High School, Greeleyville, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Darin Singleton worked with Mr. Charlie Fulton, Pastor, Town Administrator on his application “Fitness Friday” which was one of the ten selected to receive a community mini-grant from SE-VIEW. SE VIEW coordinators (Mack and Singleton) assisted them with various aspects of the grant application including check delivery, budgets, reviewing award letter terms, goals, summary statements and obtaining appropriate signatures for processing of funds. They also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Mr. Fulton partnered with C.E. Murray High School, JROTC and the students. Currently, they participate on Fridays at the High School, JROTC is leading the effort and the Science teachers are assisting with the nutrition. They have expanded into the Town of Lane where they got churches and youth programs involved, and expect to continue expanding into the surrounding areas such as Greeleyville. Ms. Sheryl Mack currently serves as Advisor. According to the US Department of Agriculture (USDA), children (2 to 18) consume an average of 118 more calories per day in 1996 than they did in 1978. An extra 118 calories per day, if not compensated for through increased physical activity, would translate into an average of 12 pounds of extra weight gain per year. Over two-thirds of all foods consumed by school children are foods that are recommended for occasional consumption. Finally, only 30% of children attend daily physical education classes. Because of the rising obesity rates of young people, this may be the first generation of children who live shorter lives than their parents. The goals of the project were to 1) To increase the awareness of the benefits of a healthy lifestyle in young people who are participating in the JROTC program and 2) To provide the opportunity for the community to engage in nutritional and physical fitness programs that will enhance their overall long term health.

- Outcome: The project engaged a consultant who would teach Zumba fitness to the group. There were as many as 26 adults involved, all female and age group from early 20's to 60+.
- D.P. Cooper Elementary School - Salters, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Singleton worked with Co-partners Ms. LaShanda T. Keels, School Guidance Counselor and Mrs. Dottie M. Evans, Administrator of non-profit (Hopewell Senior Day Care Center, Inc.) on their application "Food and Fun: A Nutritional and Physical Activity Program for Children" which was one of the ten recipients of the SE-VIEW mini-grant awards. They assisted with various aspects of the grant application and also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Ms. Judy Morris is the principal investigator and D.P. Cooper Elementary School has the following as partners: Hopewell Senior Day Care, Jerusalem United Methodist Church, St. Luke United Methodist Church, Canaan AME Church, St. Phillip AME Church, St. Mary AME Church, D.P. Cooper faculty and staff, Trio Community Action Organization and Gideon Masonic Lodge. 200 students and parents participated. Ms. Sheryl Mack serves as the Advisor for this program. Quarterly Report submitted October 15th. In Feb 2013, Ms. Mack attended various school programs including a parenting workshop entitled "Love and Happiness – Building and Nurturing Self-esteem Parent" and distributed information on nutrition, high blood pressure and physical activity. She also spotlighted the "Take 10" Program Book and DASH cookbook.
 - Outcome: While many of the group sessions are to be held in August 2013, the immediate outcome was increased willingness of the students and their parents to participate in the program for preparing for a healthy lifestyle through healthy eating using Dietary Approaches to Stop Hypertension (DASH) diets.
- Williamsburg County First Steps to School Readiness Partnership Board - Kingstree, SC (Mini-Grant recipient)
 - Ms. Sheryl Mack and Mr. Singleton worked with Ms. Carletta Isreal, Executive Director and Mrs. Barbara Parrott, Board Member on their application "Rural Education Accelerating Community Health Initiative Impacting Childcare" which was one of ten selected to receive a SE-VIEW community mini-grant. They assisted with various aspects of the grant application and also advised them on guidelines, expectations, progress reporting and deadlines. Initial application efforts started on July 2, 2012 and the community grant was awarded on October 2, 2012. Quarterly reports were submitted ((see attachment, #19 community grant). In February 2013, Mrs. Lewis represented SEVIEW at the Week of the Young Child Annual event (attended by 200 people) and at the at the "Eating Smart on the Run" training. Mrs. Lewis made two presentations: "The importance of physical activity for young children" and "Preparing healthy meals". The executive director has assisted each participating center director in completing action plans as a part of the Eat Smart Move More Self-Assessment. A total of six centers continue to participate in the program serving approximately 340 children age birth to eight throughout Williamsburg County. Williamsburg County First Steps will continue to have a representative on the Williamsburg County Eat Smart Move More Coalition (WCESMMC) to continue to educate the county on the benefits of choosing a healthy life style, providing more opportunities across the county for the availability of fresh produce for its citizens through local Farmers' Markets.

- Outcomes: Action plans had been implemented in each Center. The Directors were able to share the changes in their menus, the increase in daily physical activities for children, and the awareness and useful information that was received through this grant had benefited each childcare facility in a positive way. Furthermore, center directors are using recipes from the DASH Cookbook and encouraging parents to do the same at home.
- Hemingway Elementary, Middle and High School, Hemingway, SC
 - From July 2012 to March 2013, Mrs. Patricia Lewis of the SE-VIEW team interacted with the Principals, school employees and the parents to educate them on developing healthy eating habits and the importance of including some form of daily physical activity. Mrs. Lewis disseminated SE VIEW information at Hemingway Elementary, Middle and High School Open Houses. She was also instrumental in getting School employees to complete the Williamsburg County Community Health Surveys, which will help MUSC, DHEC and Williamsburg Regional Hospital as they strive to work together to make Williamsburg County a healthier place to live. Mrs. Lewis presented from the Practical Parent Education Curriculum on the topic “Dealing with Stress in the Family” and did a SWOT Analysis with the group discussing the opportunities to alleviate stress in the family and the community. Mrs. Lewis also participated in the monthly parenting program for middle and high school. She educated the participants on how maintaining a healthy weight for children can boost self-esteem and how preparing healthy meals at home can strengthen the bond between parent and child. Mrs. Lewis and the group did a SWOT Analysis on the strength, weaknesses, opportunities and threats that can help or hinder children making healthy choices. She also shared information on the importance of healthy choices, diet, exercise and doctor checkups, for cancer patients and survivors at the monthly parent program and instructed on breast cancer awareness. Overall, she reached to about 500 participants in the Hemingway County.
- Worksites
 - Trebol USA, Inc., Andrews, SC
 - In July 2012, Mr. Singleton met with the Health and Wellness Committee and learned that the plant had already established a number of health initiatives at their worksites including weight and healthy lunch challenges and health screenings for employees and their spouses. Mr. Singleton was then invited to be a part of their monthly employee meeting to give a presentation on knowing your numbers (hypertension, cholesterol, blood sugar), which was held on August 17th. Mr. Singleton did a presentation to the employees of Trebol, USA on “knowing your numbers” (blood pressure, blood sugar, BMI, and cholesterol). Presentation was held during their monthly employee meeting on August 17th. 42 employees attended presentation; 38 males (27 African Americans and 11 Caucasians) and 4 females (2 African Americans and 2 Caucasians).
 - In March 2013, after Mr. Singleton’s untimely death, Ms. Mack renewed contacts with Dr. Deborah Scott, Director of Quality Assurance regarding the company’s progress in the wellness programs and has been asked to join their Wellness Committee and attend the Committee meetings. The purpose of the meeting is to brainstorm ideas for delivering healthy messages and encouraging physical activity and developing healthier eating habits within the company. They are also interested in promoting wellness at their monthly employee meetings. This might also be a future site to get de-identified data from their health fairs as approved in the amended SE-VIEW protocol.

- Tupperware Inc., Hemingway, SC
 - In July 2012, Mrs. Lewis met with Tupperware's Plant Nurse, Ms. Mary Powell and Ms. DeJuan Hinson to inquire about any upcoming health events for employees; and tentative plans for a health screening activity (October or November). However, since the amended TATRC protocol was pending MUSC-IRB approval, the SE-VIEW team missed their health fair, but later went and collected the data as approved by the IRB.
- Palmetto Synthetics, Kingstree, SC
 - The plant has 200 employees. Between March-June 2013, Ms. Sheryl Mack and Mrs. Lewis visited the worksite, presented SE-VIEW and disseminated healthy life style changes information to 50 employees: 38 men (11 Caucasians, 27 African Americans) and 12 women (3 Caucasians, 9 African Americans) during safety meetings each Wednesday.
- Farmer's Telephone Cooperative, Inc. (FTC); Santee Electric Cooperative, Inc. (SEC)
 - Mr. Dent Adams of FTC and Mr. Stan Williamson of SEC met with Ms. Mack in Sept. 2012 regarding employee health and wellness programs. Both of them indicated that they have a wellness program that is under-utilized. Currently, they pay for employees and their spouse to have a membership at the county recreational facility and encourage fitness and better nutrition. Ms. Mack will work with Mr. Clark to determine how we might enhance participation in the worksite wellness program. Ms. Jeannette Jordan, R.D., CDE could be very helpful in helping to maximize opportunities.
- Williamsburg County Development Board, Kingstree, SC
 - Dr. Brent Egan, Dr. Marilyn Laken, Mr. Darin Singleton, Mrs. Pat Lewis and Ms. Sheryl Mack (SE VIEW team) met with Mr. F. Hilton McGill, Jr., Executive Director - Williamsburg Economic Development Board, Ms. Leslee Spivey, Executive Director - Williamsburg Hometown Chamber, Ms. Pearl Brown, Interim Director – Williamsburg Enterprise Community Commission, Inc., Mr. Dent Adams, Director - Farmers Telephone Cooperative, Inc. (FTC) Diversified Services, Mr. Stan Williamson – Santee Electric Cooperative, Inc., (SEC) Director of Finance & Economic Development and Ms. Nesmith, Grants Administrator. The meeting was held in County Council Chambers at the Williamsburg County Complex. Each representative gave a brief description about wellness programs or initiatives available to their employees.
 - Drs. Egan and Laken spoke about the purpose of the SE VIEW program and our hopes of partnering with those present and others throughout the county to improve health outcomes through health promotion and disease prevention in the workplace. They discussed their previous experience and planning with key stakeholders that guided the development of our SE VIEW project as well as plans to involve key stakeholders through a Community Health Advisory Board to tailor the program and its implementation to current needs. They discussed SE VIEW asset mapping activities as a key tool in matching needs and resources to improve health. The impact of improving community health on business opportunities was a subject of lively and engaged discussion.

B3f. Telemedicine in the Evaluation of Alzheimer's Disease in a Rural, African American Population

Director: Jacobo Mintzer, MD, Professor, Department of Neurosciences

Goals: Investigate underlying factor(s) contributing to the fact that Alzheimer's disease (AD) afflicts more African Americans than whites; develop knowledge and interventions that will help close this gap

Distinguishing Characteristics: SC's elderly population is diverse and largely rural, while most physicians

trained to provide geriatric care are concentrated in a few urban areas. For evaluation, diagnosis and appropriate treatment for AD and other neurodegenerative diseases of aging, the situation is critical. This initiative uses telemedicine to meet healthcare needs, improve healthcare delivery systems, and ultimately reduce health disparities in rural African Americans.

The rapid and steady rise in the prevalence of dementia is a major public health problem. This is especially true for South Carolina, where, according to the 2007 Annual Report of the SC Alzheimer's Disease Registry³⁰, the number of dementia cases is expected to increase from approximately 50,000 in 2005 to over 90,000 by the year 2030. South Carolina is home to a large African American elderly population concentrated primarily in rural areas. This population suffers from a lack of access to healthcare and is largely under-served medically. South Carolina follows national trends, with a higher prevalence of African Americans suffering from Alzheimer's disease when compared to White Non-Hispanics³¹⁻³⁵. Despite the high prevalence rate among African Americans in South Carolina, however, very few African Americans are diagnosed and treated. Many of these issues are related to practical issues, such as difficulties in reaching diagnostic and treatment centers, and emotional issues, including lack of ability of the local trusted medical team to provide diagnosis and treatment for Alzheimer's disease, and the natural reluctance of the elderly subjects who have learned to be suspicious of the medical system after a lifetime of discrimination. Thus, we have focused our effort on the development of new methodology to diagnose subjects in their own environment, using telemedicine as a tool to overcome both the practical and emotional barriers to access to healthcare. Specific Aims for this project:

- To utilize "Telemedicine," or video-conferencing, for evaluation and diagnosis of African Americans suffering from Alzheimer's disease and other cognitive disorders.
- To explore the validity and reliability of this approach in the targeted population and determine its applicability in clinical practice by comparing Telemedicine diagnosis of Alzheimer's disease with in-person diagnosis of Alzheimer's disease.

The use of telemedicine video-conferencing will be beneficial to the early detection of Alzheimer's disease in the African American community, and this project will provide knowledge to health-care professionals and African Americans in rural communities in South Carolina about this novel diagnostic tool. It will also serve in developing a practical, standardized process for using telemedicine to diagnose Alzheimer's disease that can be implemented statewide and ultimately on a national level. Ultimately, this project will improve the ability for African Americans living in a rural community to seek medical evaluation of dementia-related symptoms.

The following activities took place throughout the year:

- Patient enrollment began. The enrollment process began with a rocky start. We faced challenges in dealing with the first patient and caregiver enrolled. The expectations of the study visit for the patient/caregiver were not aligned with the expectations of the partner site. Additional training and dialogue with the partner site team was provided and was crucial in preventing miscommunication with additional potential patients/caregivers enrolled.
- Additional resources were provided to the partner site to help with recruiting patients into the practice and study. Resources were also provided for community/physician marketing to generate additional referrals into the program.
- Several patients have enrolled in the study and evaluations have been conducted via telemedicine. African American families appear to be receptive to the concept of receiving attention for dementia care in conjunction with their primary care physician and a clinician in an Academic center.
- We have found that to introduce a new concept in a busy clinical practice is difficult and the buy-in process is labor intensive, as it requires a practice culture change. Additionally, we have faced numerous challenges in scheduling. The many participants in the project, including the patient, caregiver, study team at the partner site and at MUSC, often times have conflicting schedules and identifying available times to schedule patients has been challenging and even labor intensive at times.
- In addition, we identified another partner site that is interested in participating in this study. Initial conversations began with Dr. Glen Scott with Abbeville Neurology this past year. Additional

presentations were completed with the decision makers within the practice. Abbeville Neurology has committed to serving as a partner site, with Dr. Scott serving as the lead physician on the project at the site. We are currently in the start-up phase and anticipate evaluating patients at Abbeville Neurology in the coming year.

- In working with Dr. Scott with Abbeville Neurology through the project presentation stage, we learned of his interest in connecting with additional telemedicine opportunities. We connected Dr. Scott with Dr. Adams and the Stroke telemedicine team.
- The school-based telemedicine project group working in Williamsburg County is connecting our project with newly established contacts in Allendale and Bamberg sites. Conversations are continuing to determine the potential to explore cross-project collaboration opportunities.
- As the study advances, we expect to use our sites for other SE VIEW projects. We will also expand our reach to the sites that other SE VIEW investigators have successfully collaborated with. We plan to evaluate specific research questions in collaboration with other investigators, such as the presence of Cerebrovascular signs and symptoms in demented African American populations as well as the influence of nutritional patterns in cognitive health.
- In addition to leveraging current SE VIEW project contacts, this project team is collaborating with the NIA and John Hopkins on a follow-up project to SE VIEW to use telemedicine to diagnose African American patients with Alzheimer's disease. The goal is to see if this approach will develop a relationship between the patient, the primary care physician practice, and the academic center that is strong enough to encourage patients to get involved in clinical research. The project coordinator has also been identified as a key member of telehealth efforts at MUSC and has been formally invited to participate as a Telehealth Workgroup member. This workgroup is associated with the newly formed Telehealth Operations and Development Council. Responsibilities of serving in this group include advising on specific tasks necessary for the MUSC Telehealth network to grow and reviewing proposals from new telehealth projects.

We expect that the progress achieved as telemedicine evaluations continue will lead us to more relevant information applicable to reducing health risk factors.

Key Research Accomplishments

Southeastern VIEW Administrative Core (SEVAC)

- **Communication/Coordination Activities:**
 - Continued weekly staff meeting with the SE VIEW PI and Program Manager.
 - Continued monthly teleconference meetings with SE VIEW Administrative Core to review SE VIEW progress.
 - Continued bi-monthly communication with the TATRC Program Officer.
 - Continued monthly meetings of the SE VIEW PI with the MUSC President and Provost established designated accounts.
 - Continued to hold bi-monthly meetings of the SE VIEW Executive Committee.
 - Continued leadership and consultation bi-monthly through individual project meetings, to address programmatic issues, strategic planning, trouble shooting, problem resolution, and project evaluation.
 - Continued to attend open forums on the MUSC campus and in SE VIEW communities, at least monthly on average, e.g., 'Grand Rounds,' 'lunch-n-learns,' special seminars, sponsored speakers, panel discussions, 'town meetings', etc.
 - Continued robust website development, maintenance and enhancement.
 - Continued aggressive social media networking.
 - Continued coordination with MUSC Business Development and Marketing on public relation

activities to promote awareness of SE VIEW outreach activities and expand SE VIEW marketing tools and resources.

- Consulted with the Office of Research and Sponsored Programs staff as needed.
- Meetings with the Director of Grants and Contracts Accounting as needed.

- **Administrative/Fiscal Activities:**

- Grants/contracts administration, human resources administration, business operations management and procurement.
- Monthly reviews of expenditure reports for accuracy and compliance with federal and institutional guidance.
- Regular reviews of activity and costs per initiative to identify under/overutilization of resources or disproportionate use of resources by any area, with additional review, adjustment or action as needed.
- Guidance and assistance to comply with all reporting requirements of DOD and other cognizant entities.

- **Integrative Activities:**

- Bi-monthly strategic planning reviews and sharing of 'best practices' for community engagement and coordinated communications in the locales that host the SE VIEW initiatives
- Ongoing program assessment and evaluation within the overall SE Evaluation Plan.
- Continued leadership, visible participation and programming of annual National Conferences on Health Disparities, Community Leadership Institutes and Technical Assistance Workshops.
- SE VIEW PI provided consultation in the composition of an article, which featured SE VIEW among programs in the October/November 2012 edition of Progressnotes.³⁶

MUSC Public Information and Community Outreach (PICO) Initiative and Community Institutes for Traditional and Nontraditional Leaders

- **2012 Accomplishments**

- Community Leadership Institutes (CLIs)
 - Columbia, SC CLI
 - Brookland Banquet and Conference Center (July 13-14, 2012)
 - 345 in attendance
- Technical Assistance Workshop (TSWs)
 - Columbia, SC TAW
 - Allen University (August 29, 2012)
 - 38 in attendance
- Sixth Annual National Conference on Health Disparities
 - Location: Peabody Little Rock Hotel – Little Rock, AR- November 28 – December 1, 2012 (325 in attendance)
 - Built upon the five prior national conferences on health disparities held in Charleston, SC (2007 and 2011); St. Croix, US Virgin Islands; and Atlanta, GA; and Philadelphia, PA. Program-related efforts officially commenced, May 10, 2012, in Charleston, SC, with a planning session that convened 29 health care professionals, policymakers, and university faculty from across the nation to provide input on topic selection, expert panelists and prospective sponsors and supporters.
 - Program partners: Clinton Presidential Center, Morehouse School of Medicine, City of Little Rock, Arkansas Minority Health Commission, University of Arkansas for Medical Sciences, Little Rock Convention and Visitors Bureau and the Congressional Black Caucus Foundation, Inc., in conjunction with The Congressional Black Caucus Health Braintrust and TriCaucus Health Task Force Chairs.
 - Addressed social determinants of health, including education levels, health literacy, poverty, public safety, community design, access to care, environmental quality,

environmental justice, and personal, government and corporate responsibility. A partial list of presenters includes: Former President William J. Clinton, 42nd President of the US; Dr. J. Nadine Garcia, Office of Minority Health, US Department of Health and Human Services; Dr. John Ruffin, National Institute on Minority Health and Health Disparities; The Honorable James E. Clyburn, U.S. Congress (SC-06); The Honorable Donna Christensen, MD, U.S. Congress (Delegate for the U.S. Virgin Islands); The Honorable Barbara Lee, U.S. Congress (CA-09); Dr. Reed Tuckson, UnitedHealth Group; Dr. Daniel Rahn, University of Arkansas; Dr. Britt Rios-Ellis University of California-Berkeley Long Beach, CSULB; Dr. Ala Frey, Children's Hospital of Philadelphia; Dr. Thomas Ellison, Bruno-Smithfield Community Health Center; and Ms. Tonya Moody, AmieriHealth Caritas Partnership. Hundreds of conference attendees expressed that they learned new approaches and planned to disseminate the information in their workplaces and communities.

- **2013 Accomplishments**

- Community Leadership Institutes (CLIs)
 - Atlanta, GA CLI
 - Morehouse School of Medicine in Atlanta, GA (February 8-9, 2013)
 - 207 in attendance
 - Bolton, NC CLI
 - Community College in Bolton, NC (February 22-23, 2013)
 - 96 in attendance
 - James Island, SC
 - James Island Elementary School on James Island, SC (May 3-4, 2013)
 - 90 in attendance
- Technical Assistance Workshop (TAW)
 - Wadmalaw Island, SC (March 9, 2013)
 - 41 in attendance
- Seventh Annual National Conference on Health Disparities Planning Committee Meeting
 - St. Thomas at The Sugar Bay Resort and Spa and at the University of the Virgin Islands (March 26-29, 2013)
 - 24 health care professionals, policy makers and university faculty from across the nation to provide input on topic selection, expert panelists and prospective sponsors and supporters
- Our Health Made-for-Television Dialogue
 - *Our Nation's Health: A focus on Social Determinants*
 - Conducted at ETV in Columbia, SC (May 30, 2013)
 - 50 in attendance

Health Careers Academy and Junior Faculty Development

- **Health Careers Academy**

- Students have an increased knowledge of:
 - Their respective career paths (dental medicine, medicine, occupational therapy, and their specializations)
 - Requirements for admission to health professions programs
 - Financial aid resources and opportunities
 - Resources to support academic program matriculation, retention and progression
 - The definitions, causes, maintenance, effects, and/or treatments of the identified health-related topic
 - The application of soft skills and academic skills to promote higher level reasoning and interactions for successful matriculation

- **Junior Faculty Development**

- Debbie C. Bryant, DNP

- **Funding Summary**

- Robert Wood Johnson Foundation - April 1, 2013 – March 31, 2014
 - Community Compass – A Tri-County Healthy Eating and Active Living Practice Model (HEAL). This purpose of this project is to implement a healthy eating and active living practice model to address obesity and healthy lifestyle behaviors with African American community social, fraternal, and faith-based organizations
 - Role: Principal Investigator
- MD005892, Ford, Esnaola (PI) – April 1, 2012 – December 31, 2016
 - NIH/NCMHD
 - Improving Resection Rates among African Americans with NSCLC

The purpose of this two-arm, cluster-randomized trial is to evaluate the impact of a dynamic, patient navigation intervention in reducing potential barriers to surgical cancer care and improving resection rates among African Americans with early stage non-small cell lung cancer. Study participants will be recruited from six geographically diverse study sites within a statewide Cancer Clinical Trials Network.
 - Role: Co-Investigator
- Avon Foundation for Women – October 1, 2010 – December 31, 2014
 - A "Lay" Patient Navigation Safety Net Program for Minorities and Economically Disadvantaged Women

The goal of this program is to provide navigation services to removing barriers that prevent timely and complete breast health and treatment services. The program takes an intensive, proactive approach by utilizing the National Cancer Institute (NCI) "Mammograms not just once, but every year for a lifetime" campaign to assist navigated patients with annual mammography re-screening services.
 - Role: Principal Investigator

- **Project Summary**

- The Community Compass, Laughter and Lifestyle 2013
 - This annual educational and awareness event is a community action project to fosters community /university partnerships and increase opportunities for organizations and individuals to consume nutritionally balance diets, engage in physical activities, and support a smoke free environment. This event is in its 3rd year and took place on April 25, at 6:00pm as we celebrate Community Compass 2013 *“Laughter and Lifestyles” with Rene Hicks*. Rene is often categorized as “a comic with a social conscious”. Most comics have comedy “acts”; Ms. Hick practices comedy “activism”. She also brought a special perspective as a lung cancer survivor.
 - Now moving into the funded RWJF HEAL Project beginning July1, 2013
 - Two articles were written about the 2013 event in the Post and Courier news article and MUSC Catalyst³⁷.

- **Honor Summary**

- 2012 Robert Wood Johnson Foundation (RWJF) Community Health Leaders Award
- Bryant featured in the RWJF Scholars, Fellow & Leadership Diversity Marketplace

- December 2012 - Bryant feature in Ebony.com wellness and empowerment/Health article "Fighting Cancer One Women at a Time"³⁸
- June 21, 2013 Presenter at the 11th Annual Summer Workshop Disparities in Health in America – Working Towards Social Justice
 - Program Chair – Lovell Jones
 - Prairie View A&M University College of Nursing
- Bryant featured in the Robert Wood Johnson Foundation (RWJF) Scholars, Fellow & Leadership Programs Diversity Marketplace
- Ida J. Spruill, PhD
 - Four areas of focus during year 3
 - Conducting Community-based health promotion intervention research and practice with individuals in South Carolina.
 - The Annual Delma Woods & Aleta McLeod Health Wellness Health Fair is an annual event that is open to the public, military families, and residents along the I-95 Corridor. The 2013 event was held on 2-24-13 at Arthur C. City Gym in Charleston. Over 175 participants and volunteers ignored the harsh weather with flash flood warnings to take advantages of Blood pressure, cholesterol, diabetes, height, weight, vision, spine, HIV, Cancer risk assessments, prostate and Sickle cell screenings at the event. Lt Col USAF AMC 628 MDG/SGHI April Broome was one of our partners with the health fair and provided over 10 military volunteers for the event. Our military contact was Lt Carlisle Harrison, retired from the Air Force. In addition to screenings were health forums presentations on Cancer and Health Disparities, and a demonstration on healthy cooking. We solidified our relationship with Carlisle Harrison, retired Air Force, Medical Commander, and he was able to contact April Broome as a partner who has committed her team for next year.
 - Bubbling Brown Sugar Diabetes seminar is being planned for Friday July 19, 2013. The name of the event is Back to Basics: Caring for your diabetes. A partnership was formed with NovaNordisk for to provide diabetes educators and healthy snacks. We are planning for 65 participants. Have form-11.
 - Training with intervention delivery and evaluation.
 - Attended the Disparities in Health In America: Working toward Social Justice, June 17-22nd, 2013 in Houston Texas at Prairie View A&M University College of Nursing
 - Cross-project synergies that have developed during the quarter and include any networking activity and collaborations that have been established outside of the SE VIEW community.
 - Community Engagement for Orangeburg and Dillon Counties: In spite of many educational intervention programs, the disease continue to increase in AA communities as there appears to be gap between intervention and self-management practice among Africa Americans especially rural AA. As our research project, **Project DIABETES** sought to understand the ethno-cultural barriers to health literacy and diabetes management among AA throughout SC, we also identified within both counties a number of participants who indicated a need for additional education about diabetes, especially, what cause diabetes and to best manage diabetes.
 - A common comment expressed by participants was "diabetes is caused by eating to much sugar," and "people who take the needle, have a worst

case of diabetes than people on the pill. “ Providing health promotion, community education or community services is not supported within our current funded grant activity. To this end, we developed plans to conduct two countywide Health Education/Promotion in Orangeburg and Dillon Counties. Using principles from Community-Based Participatory research, a planning committee has been organized by our research project to seek input from residents in terms of best date, time place and name to call the session the educational event.

- Accomplishments

- **R01 NIH/NINR R01 Grant application, Title: Ethno-Barriers to health Literacy and disease management among AA in SC approved. Project year April 30- July 1st, 2015**
- Completed Phase one of the project, which included conducting twelve focus groups. (n= 120) Transcripts are being prepared for data analysis
- Phase two includes cognitive interviews (n=12) with formal and informal leaders for survey development and pre-testing.

Stroke and Stroke Risk Reduction Initiative (SSRI)

The key accomplishments emanating from these aims are outlined below:

Aim I: SSRI Program Administration

- **Team Building and Program Coordination**
 - The SSRI Team holds a weekly meeting schedule in an agenda format with work-scope/actions, which are reviewed each week.
 - Expanding the team as appropriate based on partner interface/collaboration.
 - SSRI representatives attended all SE VIEW Executive meetings, Strategic Planning retreats and other function, reporting back to the team.
 - All reporting requirements were met.
- **Interfaced and collaborated with potential partners on an ongoing basis and as appropriate**
 - Interfaces/collaborations of note included:
 - MUSC Hollings Cancer Center (HCC) - Cancer Disparities Program (CDP)
 - MUSC Community Health Partnership & Community Engaged Scholars
 - S.C. Statewide AHEC program
 - College of Health Professionals, Stroke Rehabilitation Research Division
 - USC Stroke Program (Dr. Souvik Sen)
 - MUSC Hypertension Initiative (Sheryl Mack, Brent Egan)
 - CEASE: Community Engaged Assessment to facilitate Stroke Elimination (SCTR)
 - EMS of Charleston, Dorchester and Berkeley Counties
 - Invited potential collaborators to SSRI Team meetings. Several of these interfaces led to further partnerships and/or led to the addition of a SSRI Team member.
- **Conducted site analyses of potential external partners**
 - Determined ROIs, identified potential partners, examined Epidemiology Profiles, and contacted potential partners, as appropriate, including:
 - Clarendon Hospital: Williamsburg County - Manning, SC (I-95 Corridor)
 - Toumey Regional: Sumter County - Sumter, SC (I-95 Corridor)
 - Colleton Medical Center: Colleton County - Walterboro, SC (I-95 Corridor)
 - Bamberg County Hospital: Bamberg County – Bamberg, SC (I-95 Corridor)
 - Based on analyses, engaged existing partners in SSRI initiatives as appropriate:
 - Williamsburg – CREST/REACH program expansion and training
 - Georgetown – CEASE pilot community

- **Promoted the aims of SE VIEW and SSRI whenever appropriate**
 - Attended numerous meetings/conferences and created a wide variety of promotional materials.
 - Provided a number of program presentations.
- **IRB/ORS: Developed study designs, protocols and data requests for review/approval**
 - IRB Approval: Initial research protocol designed, developed, submitted & received approval.
 - TATRC Approval: Received on January 25, 2012

Aim II. Benchmark regions with & without REACH and evaluate the impact of telemedicine

- **Access to Care:**
 - Evaluated access to expert stroke care pre-and post- REACH implementation: Collecting census data and initial analysis being refined and completed.
 - Determined the number of residents with “access to expert stroke care.”
 - Findings were presented at an international conference and an article was published.
- **Awareness of symptoms, appropriate response times, and attitudes regarding treatment:**
 - January 25, 2012 - Received approval from TATRC.
 - Collected patient contact data from REACH database and prepared it for survey mailing list. Mailed these patients letters explaining survey.
 - Started survey with the IRB-approved protocol to contact all patients having had a REACH Telestroke consult in order to obtain information related to their recognition and response to the symptoms, which led to their REACH stroke consult.
 - Collecting and preparing to enter data into the RedCap survey system.
- **Time from Onset of Symptoms to Emergency Department**
 - Requested EMS “run sheets” on all REACH patients that used EMS: DHEC data request was developed, reviewed & submitted for two NEMESIS II data sets: one identified for REACH patients and one de-identified for all
 - Data release is still pending DHEC approval.
 - Examined critical time point data in REACH as potential evaluative criteria
 - Examined feasibility of conducting a community-based assessment regarding related attitudes/opinions (e.g. 911-use, reasons for time delays, potential interventions)
 - Created the Community Engaged Assessment to Eliminate Stroke (CEASE) Proposal in partnership with the SE VIEW Community Engagement Scholar leadership team and received SCTR Pilot Project funding.
- **Use of Alteplase (tPA):**
 - Requested two data sets from ORS to assess tPA use and the impact of REACH. Data matching, required for final data release, was delayed without TATRC approval of protocol.

Aim III. Provider Education: Developed, implemented and evaluated a Stroke CME program

- **Provided targeted stroke and stroke prevention CME programs to health providers in the ROI:**
 - Developed the CME concept and completed the CME application process.
 - Examined the current CME training sites and partnerships and further promoted its use to these partners.
- **Identified gaps in knowledge, behavior & outcomes and design the CME programs specific to these needs**
 - Continue to interview key personnel at partner sites to determine appropriate CME program format.
 - Collaborating with Area Health Education Center (AHEC) to assess more training needs and uses of the South Carolina Health Occupations Outreach Learning System (SCHOOLS) distance-learning network.

- Administered the CME programs through the traditional, in-person CME venue and utilizing distance learning technology
 - Selected presenters, topics and training dates.
 - Developed/administered program curriculum live.
 - Aired live presentations across the state using the AHEC SCHOOLS Network, thus expand community access to training.
- Created a bank of enduring stroke and stroke prevention education material that can be accessed electronically
 - Collected all training materials for future use, as appropriate.
 - Recorded all CME broadcasts and offer programs online for CME credit
 - Planning Acute Stroke Management modules

Aim IV. Epidemiology Core: *Developed Epidemiology Profiles & began to acquire/maintain overall data sets as a common resource for all SE VIEW cores.*

- Acquire/maintain databases pertinent to SE VIEW projects
 - Emergency room and Hospital data
 - Socioeconomic status (SES) and Census data
- Analyze and report data utilize the three ROIs
 - Collected, standardized and reported initial disparities data by ROI in the first SE VIEW Epidemiology Profile.
- Completed Aim I: Determine Region(s) of Interest (ROIs)
 - Defined Primary ROIs grouped by county into 3 regions
 - I-95 Corridor
 - Coastal Carolina
 - Rest of S.C.

Aim V. Stroke Care - REACH-MUSC Telemedicine Program: *Improve access to care through the use of telehealth technologies.*

- Site Updates:
 - Current REACH MUSC Telemedicine Network has 13 sites 2,031 hospital beds and 379,875 annual ED visits. This network provided over 3,218 consultations by the end of FY2013.
 - Visited and retrained REACH sites.
- Program Expansion: *Collaborate & examine feasibility to expand access to other specialties using REACH technologies*
 - MUSC CREST (Sepsis & Trauma) Program:
 - CREST was successfully established using the REACH platform.
 - CREST/REACH staff held collaborative meetings
 - First combination CREST/REACH site was established at Williamsburg Regional
 - Other Specialties:
 - Examined feasibility of using REACH technologies for several other specialties, hospitals are interested in telemedicine for in-patient consults using REACH.
 - Provided consultative services and support for other specialties exploring telemedicine.
 - Primary Care setting: Began to develop a model for expansion into primary care
- Patient Care/Follow-up:
 - Physician Portal: *Allow referring physicians to access their patients' EMR at MUSC in order to improve communications and continuity of care.*
 - Collaborated with the MUSC Physician Liaison Program to introduce the E-Care Net Viewer/Oacis program to our REACH partner sites.
 - Portal introduced to all new REACH sites as a presentation during the initial MUSC CME Training Program and applications distributed, upon requested.

- Provided contacts at existing REACH sites to Liaison for further dissemination.
- **Tell the Story:** *Document qualitative patient care information*
- Developed an audio-video presentation of patient stories, posted them online and presented them during program presentations, as appropriate.
- Continue to working with marketing as we collect/disseminate patients' stories.

Heart Health – Preventive Cardiology Research Center

- RWJF New Connections and CVD-PRIDE selection for Center faculty and SE VIEW JFDP scholar Tiffany Williams, DNP, PNP
- ASE Young Investigator Award finalist for Center fellow Shahryar Chowdhury, MD
- American Board of Obesity Medicine certification for Center director Melissa Henshaw, MD, MSCR, DHA

SC TeleSupport: Diabetes Management Initiative (Effectiveness of Technology-Assisted Case Management in Low Income Adults with Type 2 Diabetes

Please see Table 7 for details of key research accomplishments.

Tele-Critical Care to Reduce Rural Health Disparities

- Gained IRB continuing review approval to continue the study and submitted to second level IRB.
- Performed analysis of patient data
- Collaboration with Regional Medical Center of Orangeburg, Georgetown Hospital Systems, Beaufort Memorial Hospital and the SC Hospital Association
- Secured additional financial resources for project sustainability from South Carolina Clinical & Translational Research
- Program investigator Dr. Andrew Goodwin was granted a highly competitive early career development award as part of the SCTR KL2 scholars program. Dr. Goodwin's project: "Racial Disparities in Sepsis: The Role of Immunologic Heterogeneity" will utilize a multidisciplinary translational approach to explore previously described racial differences in sepsis incidence and outcomes.
- Presented abstracts at the American Thoracic Society International Conference in May 2013 in Philadelphia, PA.
- A manuscript titled "A mixed methods descriptive investigation of readiness to change in rural hospitals participating in a tele-critical care intervention" was published in BMC Health Services Research.
- Further developed the research team
- Submitted a no-cost extension request in February 2013 to continue work to establish a University-Community Critical Care Collaborative to improve the care for critically ill patients between the Medical University of South Carolina (MUSC) and community hospitals.

Lean Team Initiative

- Completed enrollment and data collection
- Assessed 806 participants (788 students, 17 instructors) in Stage I and 506 (489 students, 17 instructors) of these in Stage II
- Analyzed baseline data on 788 students and 17 instructors
- Completed preliminary data analysis on second survey assessments
- Submitted amendments 3 & 4 and received approvals to conduct 7 FG sessions (Instructors and students) and Exit Surveys/Structured Interviews (Instructors)
- Completed FG sessions and preliminary analysis of key findings
- Analysis of BMI and % Body Fat data of baseline student surveys found that reliability of BMI in teens may decrease between the 75th and 90th percentiles; further analysis pending on gender, race and second surveys

- Published 2 abstracts and presented posters at 2 scientific conferences (TOS-September 2012; PAS-May 2013)
- Completed site visits to 9 of the 11 high schools to conduct the Exit Surveys of the JROTC instructors; provided a short report of group and school summary results, which included resources, precautions, and recommendations; distributed and provided training on use of assessment equipment (stadiometer, digital body weight scale, hand-held body fat analyzer)

Community Engaged Scholars Initiative (CES)

- The three CES teams from 2012 have almost completed their research. Reports are due in late July 2013. Outcomes will be reported in next quarterly report.
- The CES teams for 2013 have completed and submitted their pilot grants and have received funding of \$10,000 each. IRB applications are currently underway. (See Appendix 2 for copies of grants.)
- The administrative team is currently preparing application to NIH for continuation of the CES Program and for expansion across multiple CTSA sites.

Mobile Outreach Van, Educational and Navigation Health Services for Underserved Populations (MOVENUP)

- **Task 1. Provide Mobile Health Unit (MHU) services and patient navigation services (see Table 21 & 22)**

The MOVENUP Program Team conducted cervical cancer screening on April 5, 2012, at the Yemassee Town Hall in Yemassee, SC. Yemassee, SC is located in the I-95 Corridor, as shown in the map below. It is a small town in Beaufort and Hampton counties. At the 2010 census, the population was 1,027. Approximately 22.2% of families and 22.9% of the population have income levels below the poverty line.³⁹

The MOVENUP Program Team conducted cervical cancer screening on October 9, 2012, at the Black River Health Care, Inc. in Kingstree, SC. Kingstree, SC is located in the I-95 Corridor. It is the county seat of Williamsburg County. At the 2010 census, the population was 3,328. Approximately 932 people (10.8% of the population) have a college or graduate degree. Thirty-five percent of all families in Kingstree are below the poverty level.⁴⁰

The MOVENUP Program Team conducted mammography screening on January 31, 2013, at the Bonsain Women's Health Center in Bluffton, SC. Bluffton, SC is located in Beaufort County near the southwestern end of the SC I-95 Corridor. It is Hilton Head Island's closest mainland neighbor. At the 2010 census, the population was 12,530 (74% European American, 18% African American, 3% Asian, 1% American Indian, 4% Other Race. Approximately 2,227 people (29.8% of the population) have a college or graduate degree. Eight percent of all families in Bluffton are below the poverty level.⁴⁰

The MOVENUP Program Team conducted mammography and prostate cancer screening on February 23, 2013, at the Arthur Christopher Community Center in Charleston, SC. Charleston, SC is located in Charleston County near the southwestern end of the SC I-95 Corridor. It is Hilton Head Island's closest mainland neighbor. At the 2010 census, the population was 12,530 (74% European American, 18% African American, 3% Asian, 1% American Indian, 4% Other Race. Approximately 2,227 people (29.8% of the population) have a college or graduate degree. Eight percent of all families in Bluffton are below the poverty level.⁴⁰

The MOVENUP Program Team conducted mammography and prostate cancer screening on May 28, 2013, in Dorchester, SC. Dorchester, SC is located near the southwestern end of the SC I-95 Corridor.

At the 2010 census, the population was 136,555 (69% European American, 26% African American, 2% Asian, 1% American Indian, 2% Other Race). Nearly one quarter (24.6% of the population) have a college or graduate degree. Twelve percent of all families in Dorchester are below the poverty level.⁴⁰

Table 21: Cancer Screening Results

South Carolina Location and Date	Screening Type	Number Scheduled	Number Screened	Number with Abnormal Results*
Yemassee 4/5/2012	Cervical	11	7	0
Kingstree 10/9/2012	Cervical	12	12	4
Bluffton 1/31/2013	Mammography	25	17	5
Charleston, 2/23/2013	Mammography	16	8	3
Charleston, 2/23/2013	Prostate	-	2	0
Dorchester, 5/28/2013	Prostate	Pending Results	Pending Results	Pending Results

Table 22: Demographic Characteristics of Screened Cervical Cancer Patients

Screening Type	Location and Date	Date	AGE	RACE	RESULT	NAVIGATION NEEDED
Cervical	Yemassee,	4/5/2012	42	AA	Normal	No
Cervical	Yemassee,	4/5/2012	46	AA	Normal	No
Cervical	Yemassee,	4/5/2012	48	AA	Normal	No
Cervical	Yemassee,	4/5/2012	51	AA	Normal	No
Cervical	Yemassee,	4/5/2012	53	W	Normal	No
Cervical	Yemassee,	4/5/2012	54	AA	Normal	No
Cervical	Yemassee,	4/5/2012	61	AA	Normal	No
Cervical	Kingstree	10/9/2012	41	AA	Normal	No
Cervical	Kingstree	10/9/2012	42	AA	Normal	No
Cervical	Kingstree	10/9/2012	42	W	Normal	No
Cervical	Kingstree	10/9/2012	43	AA	Normal	No
Cervical	Kingstree	10/9/2012	45	AA	Normal	No
Cervical	Kingstree	10/9/2012	45	AA	Abnormal	Yes
Cervical	Kingstree	10/9/2012	46	W	Normal	No
Cervical	Kingstree	10/9/2012	46	AA	Abnormal	Yes
Cervical	Kingstree	10/9/2012	50	AA	Abnormal	Yes
Cervical	Kingstree	10/9/2012	54	AA	Normal	No
Cervical	Kingstree	10/9/2012	54	AA	Abnormal	Yes
Cervical	Kingstree	10/9/2012	59	AA	Normal	No
Mammography	Bluffton	1/31/2013	34	H	Normal	No
Mammography	Bluffton	1/31/2013	40	H	Normal	No
Mammography	Bluffton	1/31/2013	40	H	Normal	No
Mammography	Bluffton	1/31/2013	41	W	Abnormal	Yes
Mammography	Bluffton	1/31/2013	42	W	Abnormal	Yes
Mammography	Bluffton	1/31/2013	45	W	Normal	No

Mammography	Bluffton	1/31/2013	45	W	Abnormal	Yes
Mammography	Bluffton	1/31/2013	49	H	Abnormal	Yes
Mammography	Bluffton	1/31/2013	51	W	Normal	No
Mammography	Bluffton	1/31/2013	51	H	Normal	No
Mammography	Bluffton	1/31/2013	53	W	Normal	No
Mammography	Bluffton	1/31/2013	54	W	Normal	No
Mammography	Bluffton	1/31/2013	56	W	Normal	No
Mammography	Bluffton	1/31/2013	59	W	Normal	No
Mammography	Bluffton	1/31/2013	61	W	Normal	No
Mammography	Bluffton	1/31/2013	58	W	Normal	No
Mammography	Bluffton	1/31/2013	63	W	Abnormal	Yes
Mammography	Charleston	2/23/2013	40	AA	Normal	No
Mammography	Charleston	2/23/2013	40	AA	Abnormal	Yes
Mammography	Charleston	2/23/2013	47	AA	Normal	No
Mammography	Charleston	2/23/2013	48	AA	Normal	No
Mammography	Charleston	2/23/2013	50	W	Abnormal	Yes
Mammography	Charleston	2/23/2013	51	AA	Normal	No
Mammography	Charleston	2/23/2013	54	AA	Abnormal	Yes
Mammography	Charleston	2/23/2013	56	AA	Normal	No
Prostate	Charleston	2/23/2013	54	AA	Normal	No
Prostate	Charleston	2/23/2013	59	AA	Normal	No

- **Task 2. Provide cancer education awareness and education related to nutrition/physical activity to the identified I-95 Corridor counties**

- We implemented a community based cancer education program focusing on the role of nutrition and physical activity in cancer prevention, improved cancer treatment outcomes, and prevention of cancer recurrence.
- The program developed out of a partnership between the MUSC Hollings Cancer Center (HCC) and local civic, faith-based and fraternal organizations. The initial focus of the program was on prostate and breast cancer. We also focused on the role of nutrition and physical activity, which transcended each type of cancer and gave the program a broader focus.
- Our partnership efforts continued with the MOVENUP Program team partnering with the Goose Creek Branch of the National Association for the Advancement of Colored People (NAACP) to participate in the Health Fair Services component of the Third Annual Goose Creek Unity Day at Goose Creek High School, 1137 Red Bank Road, Goose Creek, SC.
- Cancer education and awareness programs are a primary focus of our community outreach program activities in the I-95 Corridor. The adjacent map shows the counties in South Carolina where the MOVENUP Program team has conducted cancer education training programs. As may be seen, the majority of counties are clustered in or near the I-95 Corridor.
- The MOVENUP Program team formed a partnership with the University of South Carolina (USC) Institute for Partnerships to Eliminate Health Disparities (IPEHD), Community Engagement and Outreach Core (CEO) and the Town of Santee, SC in Orangeburg County in the I-95 Corridor to host a community based cancer education training program in the Santee Convention Center, 1737 Bass Drive. The Santee, SC region is rural with a primarily agricultural economy typical of Orangeburg County.
- Our partnership with the IPEHD was appropriate because we share a similar mission, to eliminate health disparities through community, academic and other strategic partnerships in South Carolina and beyond. The IPEHD was created to allow the university to enhance its public

and private partnerships. These partnerships provide the opportunity for the pursuit of inter-institutional, multi-disciplinary research, education, and training to address health disparities.

- The Cancer Education Guide (CEG) Facilitator Training Program employs a Train-the-Trainer approach in which each intervention participant signs a contract agreeing to conduct 2 training sessions in his or her own community in the coming year. The information disseminated during the training program (i.e., “the intervention”) consists of a 4-hour evidence-based cancer education program in which a 3-hour component focuses on general cancer information, a 30-minute component highlights prostate cancer information, and a 30-minute component focuses on cancer clinical trials information. The SC Cancer Alliance (SCCA) developed the cancer knowledge component of the intervention for general audiences with no expert knowledge about cancer. The American Cancer Society developed the prostate cancer knowledge component for lay audiences. The cancer clinical trials information component was based on a 30-minute PowerPoint presentation that is available on the National Institutes of Health (NIH)/National Cancer Institute (NCI) website.
- Cancer Education Training Sessions
 - Georgetown County
 - On **Monday, February 13, 2012**, the MOVENUP Program Team held a Cancer Educated (CEG) Facilitator training session at Georgetown Memorial Hospital in Georgetown, SC.
 - Charleston County
 - On **Saturday, June 30, 2012**, the MOVENUP Program Team held a Cancer Education Guide (CEG) Facilitator training session at the Hollings Cancer Center in Charleston, SC. Our coordinating partners were the Health Ministry Leadership of the Edisto District of the Seventh Episcopal District of the African Methodist Episcopal (AME) Church, Charleston County Baptist Association and the Heart & Soul's Program a component of the Palmetto Project.
 - The goal of the Edisto District Health Ministry is to have a Christ-centered health and wellness program focused on wholeness of body, mind, and spirit. They are led by the vision and core values that health care is a right, not a privilege and it is their mission to ensure that every available health care resource and service be provided to dramatically improve the health and well-being of the congregations and communities they serve.
 - The goal of the Charleston County Baptist Health Ministry is to focus on the critical health needs of the African American community and to discover strategies to address these needs placing emphasis on education and prevention.
 - The Heart & Soul Project is a statewide network through which volunteer health ministries in African American churches are professionally trained and equipped to educate, screen, monitor, and refer-for-treatment their members at greatest risk. However, the key to Heart & Soul is that its programming is grounded in the culture, cuisine, history, and traditional faith of African Americans in South Carolina.
 - The mission of the Palmetto Project is to identify innovative approaches to social and economic challenges facing South Carolina, and put them into action throughout the state. Through special partnerships with governments, businesses, civic groups, schools, and religious organizations, they strive to bring a fresh, entrepreneurial spirit to the work of building successful communities.
 - Georgetown County
 - On **Friday, March 8, 2013**, the MOVENUP Program Team held a Cancer Education Guide (CEG) Facilitator training session at the Georgetown Outreach Ministry, Inc. in Georgetown, SC.

- The Georgetown Outreach Ministries, Inc. (GOMInc) is a collaborative effort initiated by the Georgetown District of the African Methodist Episcopal church involving community organizations, local businesses and 32 churches located in the Georgetown and Williamsburg County area. The GOMInc is a non-profit service organization that seeks to improve the lives of people who reside near Georgetown County by providing resources to address the unmet needs of community members. Thirty-two AME churches are included in the GOMInc collaborative.
- The demographic characteristics of the 15 participants in the CEG training session are described in **Table 23**.
- Williamsburg County
 - On **Friday, May 17, 2013**, the MOVENUP Program Team held a CEG Facilitator training session at the Williamsburg County Health Department in Kingstree, SC.
 - The demographic characteristics of the participants attending the CEG Facilitator Training Class in the three locations described above are included in **Table 23**.

Table 23: CEG Facilitator Training Class*

Age (in years)	Georgetown (N=26) n (%)	Charleston (N=15) n (%)	Georgetown (N=15) n (%)	Kingstree (N=21) n (%)
18-29	1 (3.8%)	3 (20.0%)	0 (0%)	1 (4.7%)
30-39	4 (15.4%)	4 (26.7%)	1 (6.7%)	0 (0%)
40-49	6 (23.1%)	2 (13.3%)	5 (33.3%)	3 (14.3%)
50-59	9 (34.6%)	1 (6.6%)	6 (40.0%)	5 (23.8%)
60-69	3 (12.5%)	3 (20.0%)	3 (20.0%)	11 (52.4%)
70-79	0 (0%)	2 (13.3%)	0 (0%)	0 (0%)
80-89	0 (0%)	0 (0%)	0 (0%)	0 (0%)
No Response	3 (12.5%)	0 (0%)	0 (0%)	1 (4.7%)
Race				
European	9 (34.6%)	0 (0%)	1 (6.7%)	1 (4.7%)
American	16 (61.5%)	15 (100%)	13 (86.7%)	19 (90.5%)
African American	1 (3.8%)	0 (0%)	1 (6.7%)	1 (4.7%)
Gender				
Male	3 (12.5%)	0 (0%)	0 (0%)	20 (95.2%)
Female	23 (88.5%)	15 (100%)	15 (100%)	1 (4.7%)
No response	0 (0%)	0 (0%)	0 (0%)	1 (4.7%)
Education**				
JH	0 (0%)	0 (0%)	0 (0%)	0 (0%)
HS	0 (0%)	2 (13.3%)	5 (33.3%)	7 (33.3%)
SC	7 (26.9%)	2 (13.3%)	2 (13.3%)	0 (0%)
CG	12 (46.2%)	6 (40.0%)	6 (40.0%)	11 (52.4%)
PC	7 (26.9%)	5 (33.4%)	1 (6.7%)	1 (4.7%)
No Response	0 (0%)	0 (0%)	1 (6.7%)	2 (9.5%)

*Based on self-report registration forms ** Education Code: JH =Junior High, HS = High School, SC = Some College, CG = College Graduate, PC = Post College

- **Task 3. Develop a cancer research training program with students from the following Historically Black Colleges and Universities (HBCUs): Claflin University, South Carolina State University, and Voorhees College**

- The goal of the cancer research training program is to recruit the next generation of prostate cancer researchers by exposing undergraduate students (“Student Fellows”) from Claflin University (CU), South Carolina State University (SCSU), and Voorhees College (VC) to prostate cancer research at the Medical University of South Carolina (MUSC), and training them to meaningfully participate in such research activities. Seven students participated in the 2012 Summer Undergraduate Research Program (SURP), four of whom were from SC State University in Orangeburg, SC. The DOD HBCU Collaborative Undergraduate HBCU Student Summer Training Program (DOD-HBCU) supported two SC State University students, one was supported by the Department of Defense – Southeastern Collaborative Virtual Institute for Equity and Wellness (DOD-SE VIEW), and one was supported by the National Institutes of Health. The other three students were from Claflin University. Two Claflin students were supported by DOD-HBCU and one by DOD-SE VIEW.
- Prostate cancer is the second most common cause of cancer death among men in the U.S. In 2010, 217,730 new cases of prostate cancer were diagnosed and 32,050 men died of the disease.³⁹ Basic science and clinical researchers are needed to aggressively pursue and test better methods to decode the prostate cancer fingerprints, which hold the key to understanding the relationship between gene expression and future prognosis. Population science researchers are needed who will identify barriers and facilitators of prostate cancer early detection and treatment, and develop strategies to overcome them. The Training Program will provide a pipeline for future generations of these prostate cancer researchers.
- The Training Program consists of a 10-week research training curriculum, in which Student Fellows learn the fundamentals of biomedical research (MUSC’s Summer Undergraduate Research Program or SURP), and a simultaneous 10-week prostate and breast cancer research training curriculum, in which Student Fellows learn the continuum of prostate and breast cancer research, from bench to bedside to community.
- Through personal and institutional initiative on the part of CU, SCSU, and VC, a regional gain will be made in capacity to conduct prostate and breast cancer research in South Carolina, which leads the nation in prostate cancer disparities. The Training Program will lead to the following outcomes: (1) Increased number of graduate school applicants, (2) Increased number of graduate school applicants and enrollees, (3) Increased number of coauthored peer reviewed cancer disparities manuscripts with Student Fellows, and (4) Increased number of coauthored presentations made at scientific meetings with Student Fellows. The Training Program will impact the Student Fellows’ home institutions by providing a pipeline for the Fellows’ progression from undergraduate students to graduate students and then to academic researchers. The Training Program will serve as a national model to be replicated throughout the country. See **Table 24**.

Table 24: 2012 Summer Undergraduate Research Student Fellows

2012 Summer Undergraduate Research Student Fellows			
NAME	EW	FUNDING SOURCE	MENTOR
Sylvia Bridges	SC State University	Department of Defense- Southeastern Collaborative Virtual Institute for Equity and Wellness (DOD-SE VIEW)	Dr. Victoria Findlay
Deidra White	SC State University	National Institutes of Health/ National Cancer Institute	Dr. Dave Turner
Myshayla	Claflin	Department of Defense- South Carolina	Dr. Shikhar

Bell	University	Collaborative Undergraduate HBCU Student Summer Training Program (DOD-HBCU)	Mehrotra
Jasmine Fox	SC State University	Department of Defense- South Carolina Collaborative Undergraduate HBCU Student Summer Training Program (DOD-HBCU)	Dr. Erika Brown
Claudia Thompson	SC State University	Department of Defense- South Carolina Collaborative Undergraduate HBCU Student Summer Training Program (DOD-HBCU)	Dr. Danyelle Townsend
Laila Green	Claflin University	Department of Defense- Southeastern Collaborative Virtual Institute for Equity and Wellness (DOD-SE VIEW)	Dr. Marvella Ford
Britney White	Claflin University	Department of Defense- South Carolina Collaborative Undergraduate HBCU Student Summer Training Program (DOD-HBCU)	Dr. Patrick Woster

Health Empowerment Zone

- Sustainable community coalition
- Obesity Summit with establishment of action groups to address policy, research, and education
- Update of Community Action Plan

Healthy People in Healthy Communities

- One of the most notable programs introduced was providing competitive community grants so local entities could teach healthy lifestyles and screen/refer for early detection of chronic disease, and working with the medical community to coordinate evidence-based approaches to prevention and treatment of chronic disease.
- As a result of collaborative efforts, in year 3 more people were participating in exercise classes, zumba, walking clubs in their community or at the town or county recreational facility.
- Churches, worksites, schools and medical clinics/practices have purchased exercise equipment and established a health room for church members, community residents and employees.
- The local hospital, some worksites and other entities have created a walking trail around the facility to encourage employees to walk.
- The same groups have introduced nutritional classes, hosted food preparation seminars using recipes from DASH for Good Health Southern Style cookbook.
- A county agency is collaborating with the school district to create a smoking cessation program with plans to implement in elementary middle school grade levels.
- Organizations have started community gardens in Kingstree, Greeleyville following the lead of the Boys & Girls Club (Hemingway), which is now in its third year.
- To develop a healthier workforce and lower insurance premiums, more and more worksites are conducting annual health screening for employees and their families. Many are hiring a nurse to work onsite full time and or part time.
- Primary care providers are more aware of the work and programs offered by agencies i.e., SC DHEC, Hollings Cancer Center, Cancer Collaborative, Wise Woman program, Diabetes Coalition that can benefit their patients through education and outreach.

- The local hospital added a rural health clinic in an attempt to reduce the number of patients using the emergency room as a medical clinic.

Telemedicine in the Evaluation of Alzheimer's Disease in a Rural, African American Population

- Add additional partner sites to include Abbeville Neurology. Complete all contracting and start-up procedures to add additional partner sites
- Complete regulatory approval process as additional partner sites are added. Obtain IRB approvals for Abbeville Neurology partner site amendment.
- Complete Collaborative Institutional Training Initiative for Abbeville Neurology staff to participate in human subjects research.
- Train Abbeville Neurology research team on the use of the project equipment need to carry out telemedicine procedures, assessments, and patient recruitment utilizing specific inclusions/exclusion criteria.
- Continue evaluating patients at Andrews Medical Center and begin evaluating patients at Abbeville Neurology.
- Meet with additional referring physicians in the area of Andrews Medical Center and Abbeville Neurology to increase recruitment opportunities.
- Pursue referrals for additional partner site in Allendale and Bamberg as provided by the school-based telemedicine project group.
- Key accomplishments anticipated for next year
 - Add additional partner sites to include Abbeville Neurology. Complete all contracting and start-up procedures to add additional partner sites.
 - Complete regulatory approval process as additional partner sites are added. Obtain IRB approvals for Abbeville Neurology partner site amendment.
 - Complete Collaborative Institutional Training Initiative for Abbeville Neurology staff to participate in human subjects research.
 - Train Abbeville Neurology research team on the use of the project equipment need to carry out telemedicine procedures, assessments, and patient recruitment utilizing specific inclusions/exclusion criteria.
 - Continue evaluating patients at Andrews Medical Center and begin evaluating patients at Abbeville Neurology.
 - Meet with additional referring physicians in the area of Andrews Medical Center and Abbeville Neurology to increase recruitment opportunities.
 - Pursue referrals for additional partner site in Allendale and Bamberg as provided by the school-based telemedicine project group.

Reportable Outcomes

Southeastern VIEW Administrative Core (SEVAC)

Examples of progress during the third year include:

- Continued collaboration of the experienced management team –the PI, Finance Director, Program Manager, and the Marketing Consultant.
- Continued intensive engagement of key consultants for strategic planning and evaluation.
- Successful implementation of key communication/coordination activities:
 - Calendar of meetings (convenes, manages and documents board and committee meetings).
 - Conference calls, social media networking (Website, Facebook, Twitter, Pinterest, and Google Plus), dissemination of program brochure, and use of the SE VIEW PowerPoint presentation.
 - Facilitation and collaboration with co-investigator staff in carrying out daily programmatic details.
- Successful implementation of administrative/fiscal activities
 - Establishment and review of accounts, personnel actions, as listed above.
 - Meetings with executive agency, institutional, and program officials to prepare and present quarter and ad hoc reports on progress, budgets and other relevant matters.
- Continued to establish 'SE VIEW Action Agreements' with each SE VIEW co-investigator.
- Continued development of template for and submission to USAMRMC and TATRC of detailed quarterly reports for each initiative.
- Management of the 2012 National Conference on Health Disparities (Little Rock, AR; November 28-December 1, 2012); confirmation and initial planning for the 2013 National Conference.
- Continued development of the SE VIEW website (<http://www.musc.edu/seview>) with extensive crosslinks to partners, affiliates, resources and tools; continued development of the SE VIEW Facebook page (<http://www.facebook.com/SEVIEW1>); launch of the SE VIEW Twitter (<http://twitter.com/#!/SEVIEW1>), Pinterest Account (<http://pinterest.com/seview/>) and Google Plus account (<https://plus.google.com/113856284520869767628/posts>).
- Received approval of SE VIEW Phase I no cost extension request for FY14 (July 1, 2013 – June 30, 2014).
- Continued development of the SE VIEW Evaluation Plan and Logic Model for Phase I and Phase II.
- Continued Progression within the Junior Faculty Development Program and Health Careers Academy Program.

MUSC Public Information and Community Outreach (PICO) Initiative and Community Institutes for Traditional and Nontraditional Leaders

The following lists the results of the PICO programs:

- CLIs: a total of 871 attended the CLIs
- TAWs: a total of 79 attended the TAWs
- Sixth Annual National Conference on Health Disparities: a total of 325 individuals attended

The following social medial outlets have been established for PICO:

- Website: <http://pico.library.musc.edu>
- Facebook: www.facebook.com/muscPICO
- Twitter: https://twitter.com/?iid=am71153098513372716814227990&nid=23+sender&uid=385502360&utm_content=profile#!/MUSC_PICO

The lists details of the Our Health Series dialogue entitled, *Our Nation's Health: A Focus on Social Determinants*:

- Videotaped before a live studio audience at ETV in Columbia, SC - May 30, 2013; 50 guests.
- Program was broadcast statewide in SC via ETV on July 18, 2013 at 9 p.m.

- Program was broadcast on ETV's digital affiliate, The South Carolina Channel, on July 24, 2013 at 9 p.m.

Hands on Health-SC

- Hands on Health-SC staff members (Ms. Nancy McKeehan, Ms. Monique Hill, Mr. Sherman Paggi, and Ms. Maya Hollingshead) participated in 15 exhibits from June 2012 to June 2013 throughout West Columbia, SC, Charleston, SC, North Charleston, SC, Hilton Head, SC, Little Rock, AR, Myrtle Beach, SC, Whiteville, NC, Columbia, SC and James Island, SC.
- This work resulted in lay community members requesting additional training. The exhibits fostered an opportunity for Hands on Health-SC to conduct in-depth website presentations and instruct individuals how to access health resources through interactive Internet interface.
- The exhibits also gave Hands on Health-SC an opportunity to share the website addresses: www.handsonghealth-sc.org and www.hoh-sc.org. Consequently, Hands on Health-SC had a total of 415,517 visits to their website from June 1, 2012 – June 21, 2013. Additionally, the site had a total of 685,423 page views.

Health Careers Academy and Junior Faculty Development

- **Health Careers Academy**
 - Six (6) posters, abstracts, and presentations were developed, facilitated and will be made available electronically for public review at www.scahec.net
 - Students gained an understanding of the impact of health education through service learning
 - Students have an increased knowledge of the interdisciplinary nature of the four health professions (dental medicine, medicine, occupational therapy, and pharmacy)
 - Students have been connected with faculty, practicing professionals, and health professional students willing to serve as role models
 - Program participants will be tracked to assess matriculation rates
 - Support provided for three MUSC affiliated service learning initiatives
 - A campus-wide collaborative diversity initiative
 - Recommended program modification: strengthen the marketing plan for recruitment
- **Junior Faculty Development**
 - Debbie C. Bryant, DNP
 - Promoted to Assistant Professor, MUSC College of Nursing
 - Ida J. Spruill, PhD
 - Promoted to Associate Professor, MUSC College of Nursing
 - Elected President of YWCA in Charleston, SC
 - Consumer Representative for FDA, EDAC
 - Manuscripts accepted:
 - Powell-Young YM, **Spruill IJ**. Views of black nurses toward genetic research and testing. *J Nurs Scholarsh* 45(2): 151-9, 2013.
 - Sale, M., Keene, K., Garvey, T, Wein-Min, C., Fernandez, J., **Spruill, I.**et.al. (2012) CARE/SHARe Waist-based Consortium Replications in African Americans. PLoS. PMID: PLoS
 - **Spruill, I.** Leite, R, Kamen, D., Fernandes, J, Humt, K.Ford, M., Jenkins, C., Andrews, J. (2012) Two decades of successes, challenges and lessons learned: Community-engaged research with the 'Gullah' population of South Carolina Gateways: International, *Journal of Community Research and Engagement*

Stroke and Stoke Risk Reduction Initiative (SSRI)

The SSRI Team is very successful in producing a number of reportable outcomes during this period, such as manuscripts, abstracts and presentations. Please refer to Appendix 1: Promotional Activities Update for a fully comprehensive outline of the reportable outcomes emanating from this research, including: Articles and

publication, Meetings and conference presentations, CME training/presentations and Emerging Projects and Collaborations, and Research submissions. Additionally, several appendices attached to this report provide presentations and posters illustrating research findings and outcomes. These include:

- Association of Academic Health Centers Conference, Poster Presentations for Stroke
- 6th Annual South Carolina Heart Care Alliance, Heart and Stroke Care Educational Forum
- 2013 International Stroke Conference – Awards and over 25 Abstract and Poster Presentations
- South Carolina Aging Research Network Conference - Oral/Poster Presentations
- Society for Epidemiologic Research's (SER) Annual Meeting - Poster Presentations
- World Health Organization Conference
- American Telemedicine Association
- SmartState Council of Chairs
- Spring 2013 Neurosciences Symposium, “Innovations in Neuroscience: Gateway to the Mind and Body”
- Symposium on International Collaboration and Exchange between MUSC and Suqian People’s Hospital, Suqian Municipality, Jiangsu Province, China
- Sickle Cell Stroke Research & Stroke Cooperative Working Groups a joint lecture with Morehouse School of Medicine

Substantial progress has been made during this year to address the SSRI aims, and some research efforts have significantly grown and expanded. With collaborations in SE VIEW it self as well as with MUSC, other universityies, hospitals and global entities, we find these collaboarations as a source for emerging projects and are working hard to find all areas that the SRRI team can take their knowledge to help reduce stroke

Heart Health – Preventive Cardiology Research Center

- Heart Health program has expanded 188% overall over the past two years, serving primarily minority (>90%) families
- Hispanic population served by Heart Health has increased 4-fold over the past year
- Heart Health has completed expansion into an American Academy of Pediatrics Stage 4 (tertiary care) comprehensive pediatric obesity program

Heart Health and the Preventive Cardiology Research Center maintain an overarching focus on identifying and reducing childhood obesity-related cardiovascular risk factors that contribute to the development of health disparities and impact service eligibility. Our primary objectives are to provide a comprehensive range of preventive cardiology and weight management services for the pediatric population of coastal South Carolina, with a particular emphasis upon identifying and addressing etiologic contributors to cardiovascular health disparities. Volunteer involvement and community engagement remain a high priority, as well as maintaining and expanding our existing network of providers and community partners. The project has significantly expanded its operations across all SE VIEW core domains (prevention, education, partnership, and research), providing a broad range of support to underserved children and families through our clinical program and through partnership efforts with area community centers, schools, churches, and other educational entities, as well as through collaboration with the Lean Team through SE VIEW and The Boeing Center for Children’s Wellness.

Our programmatic activities have clear implications for military readiness. Early detection of potential and known cardiometabolic risk factors permits the implementation of corrective measures that may ultimately reduce the impact of childhood obesity on both the individual and population level. Early detection of acquired cardiovascular disease through non-invasive imaging is a key topic of interest with major public health implications, particularly among high-risk target populations such as obese children and adolescents with the metabolic syndrome. Early detection of acquired cardiovascular dysfunction permits early intervention, and early treatment potentiates a reduction in long-term health sequelae. Earlier detection of cardiometabolic risk, combined with effective intervention during childhood and adolescence, will help produce a healthier

population of military recruits. Through all of our efforts, Heart Health and the Preventive Cardiology Research Center are creating new avenues for treating pediatric obesity, managing cardiovascular risk, and reducing health disparities.

SC TeleSupport: Diabetes Management Initiative (Effectiveness of Technology-Assisted Case Management in Low Income Adults with Type 2 Diabetes)

From subjective reports and informal conversations, many participants have expressed satisfaction with the study thus far. Their actions have supported their verbal queues, as they are uploading readings and readily contact the research assistant and/or nurse case manager when they are in need of supplies, experience difficulties with the device, and/or observe abnormal readings. Additionally, the study staff has had to work effortlessly to get participants in for follow-up appointments. Most readily return for follow-up appointments, and many engage the study staff, asking questions and participating in relevant discussions, pertinent to medical decision-making and quality care. We are hopeful that the success of this study will continue and that it will be reproducible in other populations.

Tele-Critical Care to Reduce Rural Health Disparities

With the focus on reducing the health risk factors that could prevent military enlistment the analysis of the databases revealed very large variations in the risk of death for sepsis patients. As a result of this finding the investigators developed a multivariable model that has the ability to predict a patient's risk of death during the admission, based on the patient's age, the presence of complex comorbid conditions, the need for ventilator care, and the presence of shock at admission. The data analysis of identifying patients in smaller community hospitals who are high risk and who should be considered for early transfer to a specialty hospital for advanced care holds the potential for improving care of African Americans and Veterans and identifying factors to target for prevention of the various critical illnesses faced by this targeted military recruitment population. African-Americans had a significantly poorer survival and many of the SEVIEW target counties in SC along the 1-95 corridor have predominate African American populations. The SEVIEW team continues to study in order to identify if clinical risk factors exist that could explain racial survival differences for patients with respiratory failure and especially important to develop a system of inter-hospital collaboration to improve care for patients cared for in lower volume hospitals.

With the attained 2010 administrative hospital data from SCORS the program's co-investigator, Dr. Kit Simpson, developed programming codes, a de-identified database and performed an observational analysis of data. With the objective to identify opportunities to improve care at the patient community and hospital level the investigators conducted a population based, descriptive investigation of critically ill patients in SC and sought to determine variation in patient survival associated with inter-hospital transfer of patients with VDRF including the impact of timing of inter-hospital transfer. The team hypothesized that patients with VDRF who were transferred between acute care hospitals would most benefit from early as opposed to later inter-hospital transfer. 308 patients met the inclusion criteria and were transferred between SC acute care hospitals. The study results showed of the 308 patients 42% died and 58% survived. Survival was numerically better at 71% for patients with transfer before 24 hours, compared to 57% for later transfers but not statistically significant. Risk of death increased 18% for each decade increase in patient age. African-American patients had a significantly increased risk of death compared to white patients. The study found that VDRF patients who were transferred early had a significantly improved chance of survival. And, irrespective of timing of transfer, African-Americans had a significantly poorer survival. These finding were compiled into an Abstract on Sepsis re-admission cases and presented at the American Thoracic Society International Conference in May 2013 in Philadelphia, PA.

A manuscript titled "A mixed methods descriptive investigation of readiness to change in rural hospitals participating in a tele-critical care intervention" written by SE VIEW investigators Drs. Ford, Zapka and Simpson was published in BMC Health Services Research. Cite: Zapka, et al.: *A mixed methods descriptive*

investigation of readiness to change in rural hospitals participating in a tele-critical care intervention. BMC Health Services Research 2013 13:33

The development of a system of inter-hospital collaboration to improve the care of critically ill patients in SC will provide new benefits for patients, families, and clinicians at partner hospitals. Patients will receive increased quality of care with fewer complications translating into reduced morbidity and mortality. Patients will also benefit from having an MUSC intensivist physician involved in their care via telemedicine. This will provide access to a medical specialty not currently available at our partner hospitals and intensivist directed care significantly improves mortality, morbidity, quality, and cost of care. Clinicians at partner hospitals will benefit from the opportunity to work with peers at MUSC in multiple contexts including educational forums, quality improvement meetings, case conferences, and during patient care. Finally, we believe the program will increase patient, family, and staff satisfaction.

Lean Team Initiative

- Publications
 - Two abstracts were published and accepted for poster presentations:
 - The Obesity Society annual conference in September 2012: “Evaluation of weight status, % body fat and lifestyle behaviors in JROTC students”. JD Key, CT Martin, LA King, Pediatrics, The Medical University of South Carolina, Charleston SC; S Slaughter, Office of the President, The Medical University of South Carolina, Charleston SC
 - Pediatric Academic Society in May 2013: “Doctor, it’s all muscle!”- Comparison of body fat versus BMI in assessment of obesity in teens. JD. Key, CT Martin, LA. King, Pediatrics, The Medical University of South Carolina, Charleston SC; S Slaughter, Office of the President, The Medical University of South Carolina, Charleston SC
- Presentations
 - With financial support from the BCCW and in collaboration with MUSC’s South Carolina Clinical Translational Institute (SCTR) and Center for Community Health Partnerships, we co-sponsored and presented at two obesity conferences held at the Medical University of South Carolina and Trident Technical College campus:
 - “SCTR Scientific Retreat on Obesity (October 19, 2012) featured national, regional and local presenters and drew over 200 participants from across the state.
 - “Conquering Tri-County’s Obesity Epidemic: Challenges, Changes, Choices” (December 6, 2012) was an invitational leadership meeting to discuss how combined community efforts can lead to the implementation of proven approaches and undertake research to identify new approaches to the obesity epidemic facing our communities and drew over 60 community leaders (agendas can be found in Appendices).
 - “Unified! A Voice Against Obesity”. SC DHEC: Lean Team Doc-adopt-initiative- Janice Key, MD. February 21, 2012 (video clip can be viewed at <http://www.scdhec.gov/scobesity/>)
- Other
 - Office of the Under Secretary of Defense for Personnel and Readiness/MPP (AP) Sharing of study results- during visit to Pentagon- May 2013
 - The Honorable James E. Clyburn, Office of the Assistant Democratic Leader, U.S. House of Representatives- Shared study overview and school wellness initiatives –visit May 2013
 - Mission Readiness (Amy Dawson Taggart)- Shared study overview and school wellness initiatives via email May-June 2013
- New/Media
 - Newsprint articles were published about the BCCW Wellness Checklist Contest and Initiative and SC efforts to reduce Obesity and Health Disparities:

- “A+ for School Wellness: Goodwin Elementary is top wellness school in Charleston County this year”- David Quick, To Your Health, Post & Courier (www.postandcourier.com). June 4, 2013 (**Appendix 14**)
- “School wellness finale: Sullivan’s Island wellness finale reinforces lessons learned during school year”- David Quick, To Your Health, Post & Courier (www.postandcourier.com). June 11, 2013 (**Appendix 15**)
- “SC task force tackles childhood obesity”- Joey Holleman. The State (<http://www.thestate.com/>) January 27, 2012 (**Appendix 16**)
- SC ETV
 - “Americas Armed Forces: Time for a Checkup”-moderator John King. July 2, 2013 8pm EST (<http://www.scetv.org/armedforces/>) SE VIEW researchers participated as audience in panel discussion.
- Sustainability Funding
 - Boeing Company: BCCW applied Oct 2012; awarded \$500,000 Jan 2013 to expand school wellness efforts in tri-county region
 - Boeing Company: BCCW applied June 2013 for \$2 million to expand school wellness efforts statewide; award pending Jan 2014
 - Coastal Community Foundation for CRBR mini grants: BCCW applied Oct 2012; awarded \$1500 Jan 2013 (60 free entries) to promote physical activity in teachers- 160 participants
 - Healthy South Carolina Initiative (HSCI): BCCW applied Jan 2013; awarded \$114,000 May 2013 to reduce prevalence of obesity by improving school health environment
 - MUSC SCTR Community Engaged Scholar (CES) grant: BCCW applied for in partnership with CCSD; awarded \$10,000 Jan 2013; June 2013 to collect and manage BMI data in school district
 - Dr. Carolyn Jenkins (MUSC REACH) applied for funding to reduce Type II Diabetes and comorbidities of obesity in Bamberg County and will partner with BCCW to improve school health; application pending-July 2013

Obesity is an increasing problem in children and adolescents, which specifically impacts the fitness of military recruits. The most common reason that recruits fail their enlistment physical is obesity and its related illnesses. The purpose of our program is to understand the best ways to improve the fitness of students throughout Charleston County and to develop interventions and make recommendations for how JROTC instructors and students can benefit by improved school health initiatives and better weight status assessments. As obesity is a complex problem, our efforts entail a portfolio approach as recommended by the Institute of Medicine¹ that focuses on improving the school.

Community Engaged Scholars Initiative (CES)

The overall program outcomes will be evaluated during the no-cost extension period. The in- depth assessment of the CES Program will capture awards, national and international presentations, publications, grants awarded, grant submissions and future plans for all CES-P cohorts and the overall program staff. This assessment will be reported in the next quarterly report.

The CES has produced relevant results related to partnership capacity and sustainability. Markers of these results include formalized partnerships, publications, grant submissions led by community partners, national presentations by partner teams, and formalized plans for sustainability of the partnerships and projects. The Community Engaged Scholars Program serves as a model to build the capacity of both academic and community partners to conduct research that promotes sustainable mechanisms for attaining health equity in our communities. Future work will include adaptations of the current training model based on RFA announcements and additional training needs of academic and community partners.

Mobile Outreach Van, Educational and Navigation Health Services for Underserved Populations (MOVENUP)

The community based cancer education-training program impacted two outcomes leading to two recent publications: perceptions of cancer clinical trials and identification of barriers for a future navigation intervention. Each outcome is described below:

- ***Assessing an Intervention to Improve Clinical Trial Perceptions among Predominately African-American Communities in South Carolina* (published by *Progress in Community Health Partnerships: Research, Education, and Action* in 2012)**

Because African Americans are not well represented in cancer clinical trials despite having significantly higher cancer mortality rates than their European-American counterparts, a study was conducted to evaluate a program to improve perceptions of cancer clinical trials among African Americans. Providing cancer clinical trial information led to more positive perceptions of cancer clinical trials among African Americans. The study suggests that in future studies, an evaluation of trial enrollment rates should be conducted following the educational program could be used to help potential trial participants make informed decisions about clinical trial participation.

- The study results showed that for each survey item, most participants who had less favorable perceptions of trials at the pretest changed to more positive perceptions at posttest ($p < .001$). Slightly more than half of the participants had at least a college diploma (54.4%), 45.1% were married/living as married, 53.3% were female, and 45.6% had an annual household income of less than \$40,000

- ***Unequal Burden of Disease, Unequal Participation in Clinical Trials: Solutions from African American and Latino Community Members* (published in *Health and Social Work* February, 2013)**

- Exciting new medical therapies for a number of diseases that disproportionately affect African Americans and Latinos are currently being developed and tested in clinical trials. Despite bearing an unequal burden of disease, African Americans and Latinos continue to be underrepresented in clinical trials research, even though the National Institutes of Health Revitalization Act of 1993 stipulating the participation of women and minority groups in research was created in 1993 and updated in 2001. Insufficient representation of racially and ethnically diverse groups and women in clinical trials results in inequitable distribution of the risks and benefits of research participation and reduces the generalizability of trial results. Health disparities in the United States could be reduced if targeted therapies were discovered that work equally well in all populations or work especially well in members of affected racial and ethnic groups.

- The purpose of this study was to use qualitative data obtained via focus groups with African American and Latino adults ages 50 years and older to elicit potential solutions to the problem of low rates of participation of such populations in clinical trials research. The conceptual framework of the study was based on the Institute of Medicine (IOM) report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare*, which identified three factors as major sources of racial and ethnic disparities in health outcomes: (1) characteristics of health care systems, (2) perceptions of and actual interactions with health care providers, and (3) preferences and attitudes of patients. We applied IOM's conceptual framework to the arena of disparities in recruitment of diverse populations to clinical trials research by revising the wording of the IOM framework to refer to clinical trials research instead of to health care disparities. For example, in the framework, we replaced "health care systems" with "health care systems and study processes," "health care providers" with "researchers," and "patients" with "potential trial participants." The conceptual framework is related to the systems approach in the field of social work, in which clients and their needs are related to a multilevel model of resources, systems, and institutions.
- African Americans and Latinos are underrepresented in clinical trials. The purpose of this study was to elicit solutions to participation barriers from African Americans and Latinos. Fifty-seven

adults (32 African Americans, 25 Latinos) ages 50 years and older participated. The Institute of Medicine's Unequal Treatment conceptual framework was used. Six racially/ ethnically homogenous focus groups were conducted at five sites in three counties. Themes within groups and cross-cutting themes were identified. The NVIVO program was used for data classification. The data were reviewed for final coding and consensus. Shared solutions included addressing costs, recruiting in community contexts, conducting community and individualized patient education, and sharing patient safety information. Participants were unanimously in favor of clinical trials navigation recruitment interventions. Solutions specific to African Americans included diversifying research teams, recognizing past research abuses, and increasing community trust. Solutions specific to Latinos included providing low-literacy materials, providing Spanish-speaking clinicians and advocates, and clarifying that immigration status would neither be documented nor prevent participation. Solutions from African Americans and Latinos reflect their cultural backgrounds and historical experiences. The results suggest the importance of developing a tailored, barriers-focused navigation intervention to improve participation among diverse racial and ethnic populations.

The Cancer Research Training Program for Undergraduate Students from South Carolina's HBCUs has resulted in significant and positive outcomes:

- The goal of the program is to recruit the next generation of prostate cancer researchers by exposing undergraduate students ("Student Fellows") from Claflin University (CU), South Carolina State University (SCSU), and Voorhees College (VC) to prostate cancer research at the Medical University of South Carolina (MUSC), and training them to meaningfully participate in such research activities. The Summer Undergraduate Research Program (SURP) Student Fellows, working closely with faculty mentors completed cutting edge biomedical prostate cancer research projects

Our Mobile Health Unit (MHU) and Patient Navigation Services continued to build capacity in health care access in the I-95 Highway Corridor by coordinating and linking with other healthcare organizations in the counties, including the hospitals, Federally Qualified Community Health Centers (FQHCs), and private physicians. Our relationships with our existing community agencies and organizations including: SC Department of Health and Environmental Control, Bureau of Chronic Disease; Department of Social Services; Palmetto Health Care; the federally funded breast and cervical cancer screening program, the *Best Chance Network*; the SC Cancer Alliance; and the American Cancer Society remains strong.

We added new organizations and community groups to our list of community partners to assist with our long range goal of reducing disparities in cancer services access, morbidity and mortality in the I-95 Corridor which represents a vital opportunity and a valuable resource for improving health outcomes and fostering economic development.

We implemented a community based cancer education program focusing on the role of nutrition and physical activity in cancer prevention, improved cancer treatment outcomes, and prevention of cancer recurrence. We have already begun the planning process for 2013.

We continued our commitment to provide Cancer Education Awareness and Education related to nutrition/physical activities to communities in the I-95 Corridor Counties through our community based Cancer Education Guide (CEG) Facilitator training program.

We recruited undergraduate students from South Carolina HBCU's to become the next generation of prostate cancer researchers by exposing them to prostate cancer research in a 10-week research training curriculum, in which Student Fellows learn the fundamentals of biomedical research and a simultaneous 10-week prostate cancer research training curriculum, in which Student Fellows learn the continuum of prostate cancer research, from bench to bedside to community.

Health Empowerment Zone

- 43 Community based events providing health education about healthy eating and active living and/or screening for chronic disease including risk assessments and BMI
- In collaboration with Healthy North Charleston supported the development of 3 urban gardens
- Produced an instructional video on the use of CARTA transportation system
- *The Healthy Cookbook* a community based participatory project documented by SCETV
- New partnerships include *El Informador*, local Spanish newspaper, Crop-Up, a non-profit advocacy group for healthy foods, and the MUSC Dietetic Internship program

The Health Empowerment Zone addresses systems, environmental and policy change that can reduce obesity by impacting healthy eating and active living in North Charleston, South Carolina. Our work has engaged municipal, faith-based, and education, and community organizations in North Charleston. Our work has included working with a community coalition to recruit a grocery store into the “food desert”, accessing additional grant funds to stimulate 10 local projects through mini-grants, developing transportation guides and a video for communities to access fresh produce, developing a photo essay for presentation to municipal leaders on barriers to using bus transportation, working with WIC to identify local barriers to using vouchers at farmers markets for fresh produce, and participation in community-based events to provide information and resource navigation to services promoting healthy eating and active living.

Residents of low-income communities in North Charleston have consistently identified that healthy foods are more expensive and less available in their neighborhoods. Inexpensive fast foods have become the diet of many young families developing food preferences for high calorie and low nutrition foods among children and adults. When these food preferences are established in children, there is a greater potential for these children to become overweight prior to graduation from high school. This trend has been documented in North Charleston Schools. Federal food assistance programs, Food Stamps (SNAP), WIC, and National School Lunch Programs, were developed to provide increased access and availability to fresh produce and other healthy foods for low-income populations. In 2012 South Carolina was targeted as part of a national campaign to increase enrollment by the working poor, Hispanics, and the unemployed. Local officials with the federal food assistance programs have indicated that the national recruitment campaign has not significantly increased enrollment numbers in North Charleston. In addition there is an underutilization of vouchers provided by WIC for farmers’ markets. In the last year of the grant, we will be collaborate with our community partners to identify the barriers to enrollment in supplemental food programs, and the policies needed to address barriers related to transportation, culture, language, and education.

Healthy People in Healthy Communities

As evident from reportable outcomes noted in the form of publications, our group has a range of complementary activities that are coincident with and complementary of our SE VIEW program efforts.

The report demonstrates that efforts were paid off and the general awareness for leading a healthy lifestyle increased among residents and in the communities of Williamsburg County. We anticipate that our programs have contributed to the large reduction of cardiovascular mortality in South Carolina, which has improved from 51st to 34th in cardiovascular mortality between 1995 and 2009, and will be expanded and accelerated in Williamsburg County. We are both optimistic and confident that the progress in health promotion and disease prevention across the lifespan in Williamsburg County will provide the leading edge for progress in South Carolina and beyond.

Telemedicine in the Evaluation of Alzheimer’s Disease in a Rural, African American Population

The greatest success of the previous year of this project was enrolling the first patients and obtaining commitment from an additional partner site. While there have been challenges throughout the year in training,

scheduling, and enrollment, the project team has addressed these challenges and is excited about the opportunity to continue patient evaluations and data collection.

While one partner site is currently in place and fully trained and functioning and an additional partner site is being added, we will continue to pursue additional partner sites to be added throughout year. Facilities of particular interest in this project are those in counties within the I-95 corridor as well as coastal counties of SC. Counties of interest include: Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Clarendon, Colleton, Darlington, Dillon, Dorchester, Florence, Georgetown, Hampton, Horry, Jasper, Lee, Marion, Marlboro, Orangeburg, Sumter, Williamsburg. Rural Americans face a unique combination of factors (economic, cultural and social, and geography) that create disparities in health care. Facilities will be selected based on the ability to address health disparities through this project. The success of this project will rely on the opportunity to partner with rural healthcare facilities that offer the advantage of specifically targeting an African American population.

The project team anticipates a successful year ahead on this project in which the bulk of patient recruitment and evaluations will occur. The opportunity to collaborate with other SE VIEW program team leaders, as well as other researchers through the MUSC Telehealth Workgroup and the collaborations with the NIA and Johns Hopkins University, will be vital in the success of the use of telemedicine in the evaluation of Alzheimer's disease in rural, African American populations throughout the coming year.

Conclusion

SE VIEW Phase I, its Co-investigators and Administrative Core has completed Year 3 of 14 community-based research and service outreach programs. A 12-month no cost extension (NCE) has been approved for Phase I for FY14 (July 1, 2013 – June 30, 2014). The 6 additional programs under SE VIEW Phase II are nearing the end of Year 2 operation. The purpose of SE VIEW is to discover and deliver innovative health care and community capacity building solutions for underserved populations. An additional targeted outcome is to reduce the rejection rate as well as improve the enlistment opportunities and tenure of active duty military personnel.

The Administrative Core delivered operations, infrastructure access, strategic consultation, and quality process support to ensure proper directions, logistics, financial transactions, regulatory compliance, collaborative exchange, community-capacity building, and alignments with the goals of programmatic synergies and streamlining administrative processes and to foster strategic partnerships and programs to address the burden of health disparities.

An evaluation planning process, inclusive of an evaluation logic model to identify SE VIEW success objectives, continues to be developed and will be completed during the FY14 NCE. SE VIEW programmatic activities, infrastructure, collaborative exchange and evaluation priorities/outcome measures will drive the Phase I NCE and the Phase II Year 3 advances and serve as foundational for SE VIEW achievement of its stated aims.

References

- 1 Annual Conference on Health Disparities
www.pico.library.musc.edu/Conferences.php
- 2 Our Health Series: A Focus on Social Determinants
www.pico.library.musc.edu/Health.php
- 3 Hands on Health-SC
<http://handsonhealth-sc.org/>
- 4 CLIs and TAWs
<http://pico.library.musc.edu/CLIs.php>
- 5 SC AHEC
www.scahec.net
- 6 CME Website
<http://scahec.net/schools/library.html>
- 7 Halm EA, Lee C, Chassin MR. Is Volume Related to Outcome in Health Care? A Systematic Review and Methodologic Critique of the Literature. *Ann Intern Med* 2002; 137:511-520
- 8 Cifuentes J, Bronstein J, Phibbs CS, et al. Mortality in Low Birth Weight Infants According to Level of Neonatal Care at Hospital of Birth. *Pediatrics* 2002; 109:745-751
- 9 MacKenzie E, Rivara F, Jurkovich G, et al. A National Evaluation of the Effect of Trauma-Center Care on Mortality. *N Engl J Med* 2006; 354
- 10 Nathens AB, Jurkovich GJ, Maier RV, et al. Relationship Between Trauma Center Volume and Outcomes. *JAMA* 2001; 285:1164-1171
- 11 Phibbs CS, Baker LC, Caughey AB, et al. Level and Volume of Neonatal Intensive Care and Mortality in Very-Low-Birth-Weight Infants. *N Engl J Med* 2007; 356:2165-2175
- 12 Angus DC, Shorr AF, White A, et al. Critical care delivery in the United States: Distribution of services and compliance with Leapfrog recommendations. *Crit Care Med* 2006; 34:1016-1024
- 13 Esteban A, Anzueto A, Frutos F, et al. Characteristics and Outcomes in Adult Patients Receiving Mechanical Ventilation. *JAMA* 2002; 287:345-355
- 14 Glance LG, Li Y, Osler TM, et al. Impact of patient volume on the mortality rate of adult intensive care unit patients. *Crit Care Med* 2006; 34:1925-1934
- 15 Kahn J, Goss C, Heagerty P, et al. Hospital volume and the outcomes of mechanical ventilation. *N Engl J Med* 2006; 355:41-50
- 16 Needham DM, Bronskill SE, Rothwell DM, et al. Hospital volume and mortality for mechanical ventilation of medical and surgical patients: A population-based analysis using administrative data. *Crit Care Med* 2006; 34:2349-2354
- 17 Peelen L, de Keizer NF, Peek N, et al. The influence of volume and intensive care unit organization on hospital mortality in patients admitted with severe sepsis: a retrospective multicentre cohort study. *Critical Care* 2007; 11:R40
- 18 Barnato AE, Kahn JM, Rubenfeld GD, et al. Prioritizing the organization and management of intensive care services in the United States: The PrOMIS Conference. *Crit Care Med* 2007; 35:1003-1010
- 19 Ewart GW, Marcus L, Gaba MM, et al. The Critical Care Medicine Crisis: A Call for Federal Action: A White Paper From the Critical Care Professional Societies. *Chest* 2004; 125:1518-1521
- 20 Kahn JM, Asch RJ, Iwashyna TJ, et al. Physician attitudes toward regionalization of adult critical care: A national survey. *Crit Care Med* 2009; 37:2149-2154
- 21 Kahn JM, Asch RJ, Iwashyna TJ, et al. Perceived barriers to the regionalization of adult critical care in the United States: a qualitative preliminary study. *BMC Health Services Research* 2008; 8
- 22 Kahn JM. Volume, outcome, and the organization of intensive care. *Critical Care* 2007; 11:129
- 23 World Health Organization (WHO), Classification of Body Mass Index in Adults, 2004

24 Gallagher et al. Am J Clin Nut 2000; 72:694-701

25 Center for Disease Control (CDC), Body Mass Index for Children ages 2-20 years, 2000

26 Mueller WH, Harris RB, Doyle SR, Labarthe DR. Am J Hum Biol 16:135-150 (2004). Percentiles of body composition from bioelectrical impedance and body measurements in U.S. adolescents 8-17 years old: project Heart Beat! (<http://www.ncbi.nlm.nih.gov/pubmed/14994313>)

27 CC Wee, RB Davis, RS Phillips. Stage of readiness to control weight and adopt weight control behaviors in primary care. J Gen Intern Med; v.20(5); May 2005

28 SC Student Health and Fitness Act 2005 http://www.scstatehouse.gov/sess116_2005-2006/bills/3499.htm

29 Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)--a metadata-driven methodology and workflow process for providing translational research informatics support. Journal of biomedical informatics. 2009;42:377-81.

30 AD Registry Prevention Center, "Statewide AD and related disorders registry." (2007)

31 Demirovic J, Prineas R, Loewenstein D, Bean J, Duara R, Sevush S, Szapocznik J. Related Art prevalence of dementia in three ethnic groups: the South Florida program on aging and healing Ann Epidemiol. 2003 Jul;13 (6) : 472-8.

32 Tang Mx, Cross P, Andreews H, Jacobs DM, Small S, Bell K, Merchant C, Lantigua R, Costa R, Incidence of AD in African-Americans, Caribbean Hispanics, and Caucasians in northern Manhattan. Neurology. 2001. Jan 9;56(1):49-56

33 Tang, M. X., Stern, Y., Marder, K., Bell, K., Gurland, B., Lantigua, R., Andrews, H., Feng, L., Tycko, B., and Mayeux, R. The APOE-epsilon4 allele and the risk of Alzheimer disease among African Americans, whites, and Hispanics. JAMA, 279: 751-5, Mar 11, 1998.

34 Fitzpatrick Al, Kuller LH, Ives DG, Lopez OL, Jagust W, Breitner JCC, Jones B, Lyketsos C, Incidence and prevalence of dementia in the Cardiovascular Health Study J. Am Geriatr Soc. 2004 Feb; 52 (2) : 195-204

35 African Americans and Alzheimer's Disease: The silent Epidemic. Alzheimer's Association 2005 http://www.muschealth.com/physician_portal/pdfs/OctoberNovember2012Progressnotes.pdf

36 <http://www.postandcourier.com/article/20130502/PC1606/130509896/1162/hollings-cancer-center-hosts-3rd-annual-community-event>

38 <http://www.ebony.com/wellness-empowerment/fighting-cancer-one-woman-at-a-time-405#axzz2XG4TZisN>

39 American Cancer Society. Cancer Facts and Figures for African Americans 2009-2010. Atlanta, Georgia: American Cancer Society; 2009.

40 <http://www.factfinder2.census.gov>

Appendices

Appendix 1



Office of the President
 Colcock Hall
 179 Ashley Avenue
 MSC 001
 Charleston, SC 29425-0010
 Tel 843-792-2221
 Fax 843-792-1097
www.musc.edu

SE VIEW Executive Committee Meeting
Colcock Hall Board Room
Thursday, August 30, 2012, 8:30 a.m. - 12:00 p.m.
Agenda

- 8:30 a.m. Introductions
- 8:40 a.m. Key insights and highlights from Tele-Health Co-investigators regarding project activities, collaborative activities with SE VIEW colleagues, community capacity building and future opportunities (Dr. Thomas Gordon)
- 9:40 a.m. Highlights of activities and program milestones submitted by Co-Investigators
- 10:05 a.m. BREAK
- 10:20 a.m. Regulatory Update
 - Evaluation Planning (Dr. Jennifer Friday)
 - Timeline for submission of IRB paperwork and reports
- 10:50 am SE VIEW Marketing Update (Garcia Williams and Tracey Smith)
 - SE VIEW Brochure
 - SE VIEW Magazine Ad Campaign
 - SE VIEW Website
 - SE VIEW Social Media
- 11:15 a.m. SEVAC Support
 - Technical Report Due Dates
 - 2012 Annual Report
 - Phase II to be submitted on or before August 30, 2012
 - Quarterly Report
 - Phase I due September 15, 2012 to Tracey W. Smith
 - Phase I & II due December 12, 2012 to Tracey W. Smith
 - Budget Updates
 - Review process to expend dollars allocated and significance of June 2013 deadline
 - EC Annual Meeting Date
- 12:00 p.m. Closing Remarks



Appendix 2



Office of the President
 Colcock Hall
 179 Ashley Avenue
 MSC 001
 Charleston, SC 29425-0010
 Tel 843-792-2221
 Fax 843-792-1097
www.musc.edu

**SE VIEW Annual Retreat
 Colcock Hall Board Room**
Thursday, October 18, 2012, 9:00 a.m. – 3:00 p.m.
Agenda

- 9:00 a.m. Greetings
- 9:05 a.m. Introductions
- 9:30 a.m. Capacity building: co-investigators share brief program updates, barriers, breakthroughs, lessons learned thus far, and going forward priorities (**maximum of 5 minutes per co-investigator**)
- 11:00 a.m. TATRC Briefing
 - Wilbur Malloy, MA, MLS (Program Manager/Medical Laboratory Scientist)
- 12:00 p.m. Lunch
- 1:00 p.m. SEVAC Support
 - Lessons Learned (Tracey W. Smith)
 - Strategic Planning (Thomas Gordon, PhD)
 - Evaluation Plan (Jennifer Friday, PhD)
 - SE VIEW Social Media (Garcia Williams)
 - Action Agreements (Tracey W. Smith)
- 2:00 p.m. Executive Advisory Committee: Recommendations for enhancing impact and effectiveness
 - Vince Ford: Senior VP, Community Health, Palmetto Health
 - Tim Garvey, MD: Professor of Medicine and Chair of the Dept. of Nutrition Sciences, University of Alabama at Birmingham
 - Allen Parrot, D.Min: New Mount Carmel AME Church, Hemingway, SC
 - Rita Scott: VP/General Manager, WCSC-TV
 - Wilbur Malloy, MA, MLS: TATRC Program Manager/Medical Laboratory Scientist (Ex Officio Member)
- 3:00 p.m. Closing Remarks



Appendix 3



Office of the President
 Colcock Hall
 179 Ashley Avenue
 MSC 001
 Charleston, SC 29425-0010
 Tel 843-792-2221
 Fax 843-792-1097
www.musc.edu

SE VIEW Executive Committee Meeting
Colcock Hall Board Room
Thursday, March 21, 2013, 8:30 a.m. - 12:00 p.m.
Agenda

- 8:30 a.m. Introductions
- 8:40 a.m. Capacity Building (Dr. Thomas Gordon)
 Key insights and highlights from co-investigators regarding project activities, collaborative activities with SE VIEW colleagues, community capacity building and future opportunities
(maximum of 3 minutes per co-investigator)
- 10:00 a.m. BREAK
- 10:15 am External Advisory Committee: Recommendations for enhancing impact and effectiveness
 - Vince Ford: Senior VP of Community Health, Palmetto Health
 - Rita Scott: VP/General Manager, WCSC-TV
- 11:15 a.m. SEVAC Support
 - Evaluation Plan (Dr. Jennifer Friday)
 - Marketing Update (Garcia Williams)
 - Technical Reports (Tracey W. Smith)
 - 2013 Quarterly Report
 - Phase I: due September 12, 2013 and December 12, 2013
 - Phase II: due June 12, 2013 and December 12, 2013
 - 2013 Annual Report
 - Phase I: due June 12, 2013
 - Phase II: due August 12, 2013
- 12:00 p.m. Closing Remarks



Appendix 4



Office of the President
 Colcock Hall
 179 Ashley Avenue
 MSC 001
 Charleston, SC 29425-0010
 Tel 843-792-2221
 Fax 843-792-1097
www.musc.edu

SE VIEW Executive Committee Meeting
ART Auditorium, Room 1119
Thursday, June 6, 2013, 9:00 a.m. - 12:00 p.m.
Agenda

- 9:00 a.m. Introductions
- 9:10 a.m. Capacity Building (Dr. Thomas Gordon and Dr. Sabra Slaughter)
 Highlights from co-investigators regarding cross-project synergies and community collaborations designed to leverage financial resources and otherwise for project sustainability (**maximum of 3 minutes per co-investigator**)
- 10:30 a.m. BREAK
- 10:45 a.m. SEVAC Support
 - Evaluation Plan (See Handout)
 - Social Media Update (Garcia Williams)
 - Technical Reports (Tracey W. Smith)
 - 2013 Quarterly Report
 - Phase 1: due September 12, 2013 and December 12, 2013
 - Phase 2: due June 12, 2013 and December 12, 2013
 - 2013 Annual Report (See Guidelines)
 - Phase 1: due June 12, 2013
 - Phase 2: due August 12, 2013
 - Budget Revisions (Tracey W. Smith)
 - Phase 1: due June 12, 2013 (Implemented July 1, 2013 – no cost extension)
 - Phase 2: due August 12, 2013 (Implemented September 1, 2013 – year 3)
- 12:00 p.m. Closing Remarks

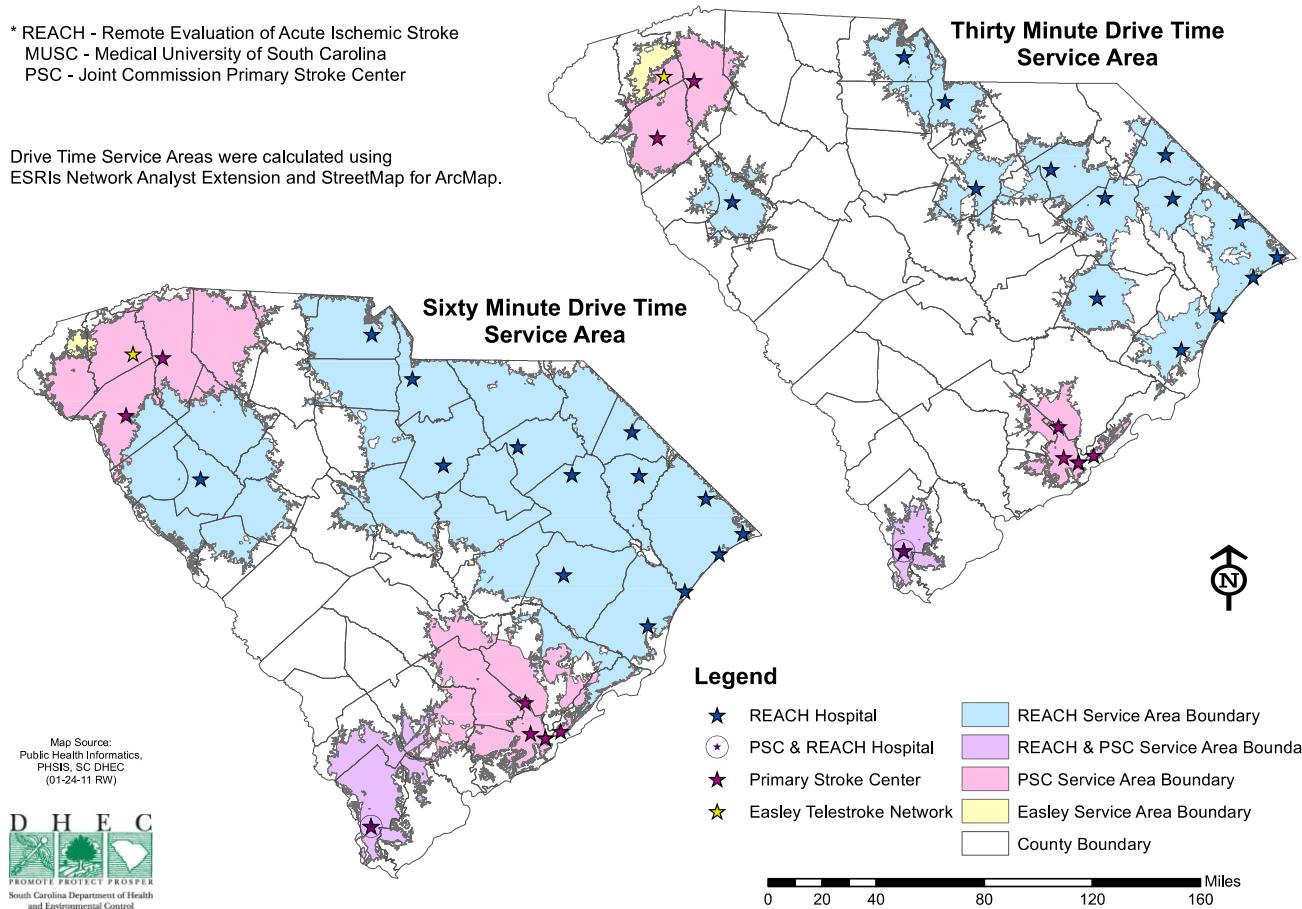


Appendix 5

Primary Stroke Centers and REACH MUSC* Stroke Network Population Serviced by PSC* and REACH Hospitals

* REACH - Remote Evaluation of Acute Ischemic Stroke
MUSC - Medical University of South Carolina
PSC - Joint Commission Primary Stroke Center

Drive Time Service Areas were calculated using
ESRI's Network Analyst Extension and StreetMap for ArcMap.



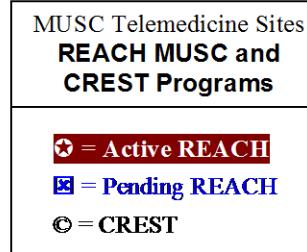
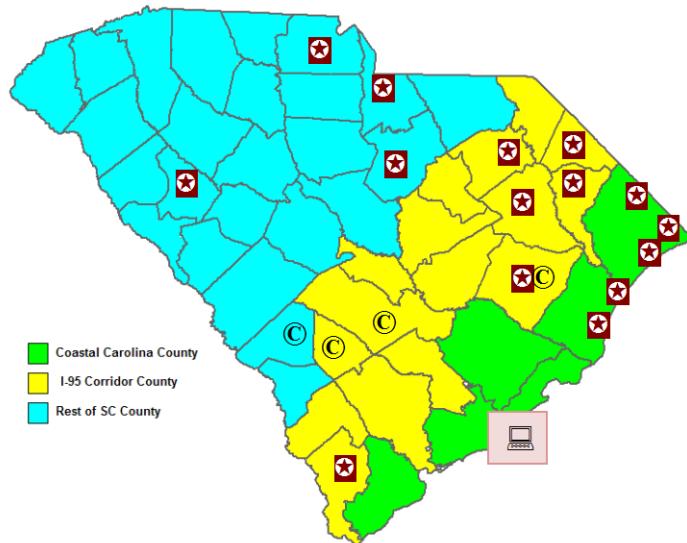
Appendix 6

Update: 9/18/2011

REACH MUSC Telestroke Site Map by SE VIEW Region

County	Region	Tele-Medicine Sites
BEAUFORT	Coastal Carolina	-
BERKELEY	Coastal Carolina	-
CHARLESTON	Coastal Carolina	Hub
GEORGETOWN	Coastal Carolina	R(2)
HORRY	Coastal Carolina	R(3)
BAMBERG	I-95 Corridor	C
CALHOUN	I-95 Corridor	-
CLARENDON	I-95 Corridor	-
COLLETON	I-95 Corridor	-
DARLINGTON	I-95 Corridor	R
DILLON	I-95 Corridor	R
DORCHESTER	I-95 Corridor	-
FLORENCE	I-95 Corridor	R
HAMPTON	I-95 Corridor	-
JASPER	I-95 Corridor	R
LEE	I-95 Corridor	-
MARION	I-95 Corridor	R
MARLBORO	I-95 Corridor	-
ORANGEBURG	I-95 Corridor	C
SUMTER	I-95 Corridor	-
WILLIAMSBURG	I-95 Corridor	R,C
ABBEVILLE	Rest of SC	
AIKEN	Rest of SC	
ALLENDALE	Rest of SC	
ANDERSON	Rest of SC	
BARNWELL	Rest of SC	C
CHEROKEE	Rest of SC	
CHESTER	Rest of SC	
CHESTERFIELD	Rest of SC	
EDGEFIELD	Rest of SC	
FAIRFIELD	Rest of SC	
GREENVILLE	Rest of SC	
GREENWOOD	Rest of SC	R
KERSHAW	Rest of SC	R
LANCASTER	Rest of SC	R
LAURENS	Rest of SC	
LEXINGTON	Rest of SC	
MCCORMICK	Rest of SC	
NEWBERRY	Rest of SC	
OCONEE	Rest of SC	
PICKENS	Rest of SC	
RICHLAND	Rest of SC	
SALUDA	Rest of SC	
SPARTANBURG	Rest of SC	
UNION	Rest of SC	
YORK	Rest of SC	R

SC SE VIEW Regions



Appendix 7



Member, REACH Stroke Network

REACH-MUSC Hospital Partners (Spokes)				VOLUMES			PERCENTAGES		HOSPITAL INFO		
Site Name and Location	County	SE VIEW Region	Start Date	Consults	tPA Given	Transport to MUSC	% Presumed Ischemic Stroke Treated with tPA	% Transfer to MUSC	# Hosp. Beds [●]	Annual ED Visits [□]	Distance to MUSC (Miles~)
Georgetown	GEORGETOWN	Coastal	5/1/2008	360	48	123	27%	34%	131	31,990	61
Waccamaw	GEORGETOWN	Coastal	5/6/2008	403	80	131	40%	33%	140	24,000	82
McLeod	FLORENCE	I-95	5/7/2008	546	122	67	43%	12%	453	63,000	133
Grand Strand	HORRY	Coastal	9/1/2008	60	20	45	34%	75%	220	62,000	102
Marion	MARION	I-95	9/18/2008	171	26	69	35%	40%	124	23,885	119
Williamsburg	WILLIAMSBURG	I-95	12/23/2008	168	30	96	37%	57%	25	11,000	74
Coastal Carolina	JASPER	I-95	1/20/2010	253	28	91	31%	36%	45	18,000	88
Piedmont	YORK	Rest of SC	3/26/2010	388	88	15	45%	4%	288	46,000	187
Kershaw	KERSHAW	Rest of SC	5/19/2010	243	25	47	22%	19%	121	24,000	148
McLeod-Dillon	DILLON	I-95	7/29/2010	233	33	53	32%	23%	79	25,000	163
Spring	LANCASTER	Rest of SC	10/26/2010	141	31	27	30%	19%	231	30,000	176
Carolina Pines	DARLINGTON	I-95	1/21/2011	89	15	34	32%	69%	116	33,000	143
Loris Community	HORRY	Coastal	2/28/2011	130	18	29	35%	22%	105	20,000	117
Loris-Seacoast	HORRY	Coastal	2/28/2011	86	5	14	15%	16%	50	20,000	116
Self Regional	GREENWOOD	Rest of SC	3/2/2011	148	35	15	51%	10%	354	40,000	191
				TOTALS	3,419	604	856	36%	18%	2,482	471,875
											127 Average

[□] Self-Report Hospital Data.

[●] BEDS = General Hospital Beds

~ Source: MapQuest (Fastest Driving Distance in Miles)

Source: SC DHEC at: <http://www.scdhec.gov/health/licen/hrhptl.pdf>

Appendix 8

SE VIEW SRRI FY13



REACH MUSC Site Video Conferences via SC AHEC SCHOOLS Network.
A series titled: **Acute Stroke Management**

- 1) **June 14, 2012** – CME nursing program present to the sites for NIHSS training presented by Dr. Robert J. Adams, Dr. Alison Yanders, Dr. Daniel Lackland, Ellen Debenham, RN.
- 2) **August 1, 2012** – “Stroke Management for Hospitalists” presented by Edward Jauch, MS, MD, Christine Holmstedt, DO, Jeffery Bodle, MD. Moderated by Robert J. Adams, MS, MD.
- 3) **October 18, 2012** – “Critical Care for Ischemic Stroke” presented by Christos Lazaridis, MD, Neurocritical Care division at MUSC.
- 4) **February 21, 2013** - “Advanced Acute Ischemic Stroke Care in South Carolina” presented by Aquilla S. Turk III, DO, Interventional Radiologist at MUSC



Appendix 9

REACH MUSC

REACH MUSC Telestroke Monthly Update

Check out this [video](#) about a young stroke survivor from McLeod Dillon.

July 2012 Edition

Meet Our New Physicians

Charles M. Andrews, MD

Dr. Andrews is currently in his second year as a Neurocritical Care Fellow as well as a Clinical Instructor in the Department of Neurosciences at MUSC. He completed his residency in Emergency Medicine at MUSC in June 2011. He received his Medical Degree at the University of Cincinnati, College of Medicine, Cincinnati, Ohio.

Diana J. Goodman, MD

Dr. Goodman joins the Neurocritical Care team in the Department of Neurosciences August 1, 2012.

She has just completed her Neurocritical Care Fellowship at the Hospital of the University of Pennsylvania in Philadelphia, PA. She was previously at the Rhode Island Hospital, Brown University School of Medicine and the Miriam Hospital for her Neurology Residency and Internal Medicine Internship. She earned her medical degree at the University of Miami Miller School of Medicine, Miami, Florida.

Shelly D. Ozark, MD

Joins the Department of Neurosciences at MUSC in July 31, 2012 as a Clinical Stroke Physician.

She has just completed her Fellowship in Vascular Neurology at Emory University in Atlanta, GA following her Residency in Neurology at Rhode Island Hospital/Brown University, Providence, RI. She earned her medical degree at the University of Miami Miller School of Medicine in Miami, Florida.

MUSC Excellence Awards

The following nurses have been acknowledged by our physicians for doing an outstanding job while executing a REACH consult.

Melissa King, RN, Georgetown Memorial Hospital

Meredith Maurer, RN, Piedmont Medical Center

Shannon Livingston, RN, Waccamaw Community Hospital



Online Stroke Training/CME

Aug. 1st Stroke Management for Hospitalist

[Click here](#) for more information.

Oct. 18th Stroke in South Carolina Updates

Dec. 13th Neuro-Interventional Radiology

For more information on these and other CME opportunities please visit

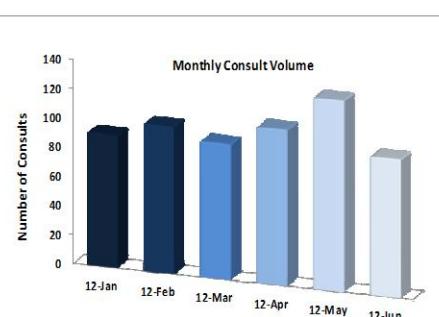
scahec.net/schools

Community Events

Sept. 29th American Heart Walk

MUSC REACH's Program is featuring a virtual Heart Walk Team. If you would like to donate, volunteer as a fundraiser or join us in Charleston for the walk please visit the link below for more information.

[Strike Out Stroke](#)



Appendix 10

Differences in Lean Body Mass May Explain the Racial Disparities Seen in Carotid Intima-Media Thickness in Obese Children

Shahryar Chowdhury, MD; Melissa Henshaw, MD; Brad Friedman, MD; Janet Carter, MS, RD; Bryana Levitan, RDCS; Tom Hulsey, ScD

Introduction: Carotid intima-media thickness (cIMT) is a strong predictor of cardiovascular disease risk. The racial disparities seen in cIMT in children have been suggested to be associated with the disproportionately high prevalence of cardiovascular disease in black adults when compared to whites. Our objective was to evaluate the effects of cardiovascular risk factors on the racial disparities seen in cIMT in obese children.

Methods: Obese subjects ages 4 to 21 were recruited prospectively. All tests were conducted during a single assessment using a standardized protocol. Subjects who were pregnant, taking insulin, or were on oral steroids were excluded. Height, weight, body mass index (BMI), blood pressure, fasting insulin, glucose, quantitative insulin sensitivity check index (QUICKI), lipid panel, high sensitivity c-reactive protein (hsCRP), cIMT, and body composition by dual energy x-ray absorptiometry were obtained. A p-value of < 0.05 was considered significant.

Results: We enrolled 127 subjects; 46 white (72% female), 74 black (64% female), and 7 of Hispanic or of mixed race/ethnicity. We found no statistically significant differences between males and females. Differences by race can be found in the Table - results are reported in means \pm standard deviation. Simple linear regression revealed significant relationships between mean cIMT and race, systolic blood pressure, and lean body mass. Upon multiple variable regression lean body mass remained the only measure to have a significant relationship with mean cIMT ($p = 0.015$).

Measure	White	Black	t-test (p-value)
Age (years)	12.5 ± 3.6	11.8 ± 3.3	0.30
Height (cm)	158 ± 12.8	155 ± 13.7	0.30
Weight (kg)	79.5 ± 25.7	88.1 ± 32.3	0.13
BMI (kg/m^2)	31.2 ± 7.4	35.3 ± 8.9	0.01
Systolic blood pressure (mmHg)	113 ± 13	112 ± 17	0.63
Diastolic blood pressure (mmHg)	63 ± 8	61 ± 9	0.15
Insulin ($\mu\text{IU}/\text{mL}$)	29 ± 22	35 ± 20	0.17
Glucose (mg/dL)	91 ± 7.6	92 ± 8.2	0.53
QUICKI	0.30 ± 0.03	0.29 ± 0.02	0.02
Low density lipoprotein (mg/dL)	103 ± 24	104 ± 24	0.73
High density lipoprotein (mg/dL)	41 ± 11	42 ± 9.2	0.49
Triglycerides (mg/dL)	112 ± 63	68 ± 28	<0.01
hsCRP (mg/dL)	0.35 ± 0.39	0.56 ± 0.54	0.01
% Bodyfat	41 ± 4.8	41 ± 5.5	0.60
Lean body mass/ height^2 (kg/m^2)	18.4 ± 4.3	21.3 ± 7.7	0.02
Mean cIMT (cm)	0.43 ± 0.02	0.45 ± 0.03	<0.01

Conclusions: Black subjects demonstrated increased lean body mass, insulin resistance, higher inflammatory markers, and greater cIMTs than white subjects. However, on multiple variable regression analysis, only lean body mass appeared to be associated with cIMT suggesting that the differences in cIMT between white and black obese children may be secondary to the differences in lean body mass (i.e. somatic growth) between the groups. Further investigations aimed at identifying the etiologic factors contributing to the racial differences in pediatric cardiovascular risk factors are warranted.

APPENDIX 11

Predictors of Survival among Patients with Ventilator Dependent Respiratory Failure (VDRF) Transferred Between Acute Care Hospitals: The Effect of Race and Timing of Transfer

Funding Source: Telemedicine & Advanced Technology Research Center, Department of Defense, W81XWH-10-2- 0057

Nathaniel J. Silvestri (1), Kit N. Simpson Dr. PH (2), Dee Walker Ford MD, MSCR(3)

1. Academic Magnet High School, Charleston, SC
2. Department of Healthcare Leadership and Management, College of Health Professions, Medical University of South Carolina
3. Division of Pulmonary, Critical Care, Allergy, and Sleep Medicine, Medical University of South Carolina, Charleston, SC

Introduction: VDRF is associated with substantial morbidity, mortality, and cost. As with numerous complex medical and surgical conditions, a volume-outcome relationship has been demonstrated for VDRF in which patient survival is increased at high case volume as compared to low case volume hospitals. However, whether improved patient survival is achieved through inter-hospital transfer of patients from low to high volume hospitals is unknown even though the transfer of intensive care unit (ICU) patients between hospitals is relatively common. We sought to determine variation in patient survival associated with inter-hospital transfer of patients with VDRF including the impact of timing of inter-hospital transfer. We hypothesized that patients with VDRF who were transferred between acute care hospitals would most benefit from early as opposed to later inter-hospital transfer.

Methods: As part of an ongoing study on health disparities in critical illness in South Carolina (SC), we obtained a patient- and hospital- identified database of all patients hospitalized in 2010 in SC with a diagnosis code corresponding to respiratory failure and a procedure code for mechanical ventilation >96 hours. We identified 308 patients that met our inclusion criteria and were transferred between SC acute care hospitals. Survival was analyzed for transfer timing (<24 hours versus > 24 hours), age, race, time in referring hospital ICU (0 vs. ≥ 1 day), and Charlson comorbidity score. Univariate and logistic regression analysis was performed using SAS version 9.2.

Results: Of the 308 patients 129 died and 179 survived. Survival was numerically better at 71% for patients with transfer before 24 hours, compared to 57% for later transfers but not statistically significant ($p=.29$). Risk of death increased 18% for each decade increase in patient age. African-American patients had a significantly increased risk of death (OR 2.1) compared to white patients. ICU admission may be protective (OR 0.70; CI 0.43-1.13) but was not statistically significant in this sample. The risks identified for death were mirrored by other health measures. Early transfers were more likely to be discharged to home (64% vs. 27% $p=.002$).

Conclusions: This study has several important findings. First, VDRF patients who were transferred early had a significantly improved chance of survival. Irrespective of timing of transfer, African-Americans had a significantly poorer survival. Additional study is needed to confirm these findings and develop a prediction model for who would benefit most from inter-hospital transfer. Additional research is warranted to identify if clinical risk factors exist that could explain racial survival differences for patients with respiratory failure.

APPENDIX 12**Concept Statement: Establishing a University-Community Critical Care Collaborative**

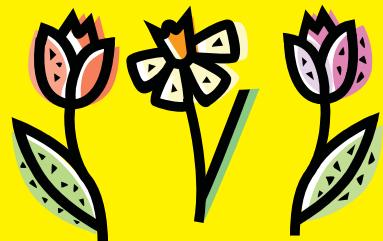
Critical care represents high stakes, high cost, acute care provided to patients suffering from a variety of potentially life-threatening conditions. Approximately 20% of Americans will die in or proximal to an intensive care unit (ICU) admission. Nationally the cost of critical care represents 1% of the gross domestic product and consumes 20% of all health care costs. Whether patients, providers, hospitals, insurers, and other stakeholders receive good value for these expenditures is unclear. The structure of critical care services has been characterized as fragmented and highly heterogeneous complicating attempts to evaluate the 'right' way to provide critical care.

While many important questions remain unanswered several recurring concepts are well-supported by scholarly literature. First, ICU morbidity and mortality is improved through effective and systematic implementation of patient safety measures designed to reduce or prevent hospital acquired complications and standardize ICU care. Second, patient outcomes are improved through functional, multi-disciplinary ICU teams including physicians, nurses, and other key ancillary staff. Third, intensivist directed care for ICU's is advocated as the gold standard yet 80% of ICU's do not achieve this and given a national shortage of trained critical care personnel are unlikely to do so in the future. Finally, despite the intuitive appeal of telemedicine technology to critical care, its role remains unclear and is in evolution.

The model of on-site specialists providing bedside care is probably untenable and impractical for a resource poor state such as South Carolina (SC). SC lacks the economies of scale, health professional expertise, and health system organization that typically foster large critical care programs. Thus, novel, outside-the-box approaches are required. The proposed Critical Care Collaborative between the Medical University of South Carolina (MUSC) and Regional Medical Center of Orangeburg (RMCO) is one such approach. The Collaborative will develop, implement, and evaluate a three-prong approach to improving care for critically ill patients. The components include:

1. Multi-disciplinary education between physicians, nurses, respiratory therapists, pharmacists, dieticians, and other key ICU ancillary staff
2. Integration into MUSC's ongoing critical care quality and patient safety initiatives including bidirectional data-sharing, protocol sharing, and joint quality related meetings and discussion
3. Telemedicine consultation, follow-up, and real-time availability between MUSC intensivists and RMCO clinicians and patients.

April 2012 Newsletter



FEATURES:



Children's Hospital hosts taste panel to celebrate National Nutrition Month



Welcome All Our New Employees!



APPENDIX 14

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

The Post and Courier

Goodwin Elementary is top wellness school in Charleston County School District this year

David Quick

Twitter

LinkedIn

Posted: Tuesday, June 4, 2013 12:01 a.m.



Kathryn Nash, school nurse for Belle Hall Elementary School, won 2012-13 Mark Cobb Transformation Award.

Creating an environment of wellness in schools involves a mix of easy and hard tasks, says a representative of the winning school in an annual competition in the Charleston County

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

School District.

What the top three finalists did this school year

Here are details of some of the initiatives taken on by the three schools scoring the highest number of points on the wellness checklist.

Goodwin Elementary

Goodwin, the winner, tapped into the eight components of the Coordinated Approach To Child Health program, or CATCH, which promotes physical activity, healthy food choices and the prevention of tobacco use in children.

The school held its first CATCH Wellness Night, featuring body-mass index and blood pressure measurements, healthy vendors, a bike giveaway and an appearance from an NFL player.

Like many schools, Goodwin started a garden. Its student-run daily news show features an exercise of the day and CATCH tip of the day about healthy eating choices. The school's fitness room was filled with a dozen pieces of equipment, including a surfing simulator.

Buist Academy

At Buist, the school implemented a policy for fundraisers that doesn't include food such as doughnuts and cupcakes.

Examples of fundraisers included a fall festival, the yearbook, a car wash, a Zumbathon for the Komen Lowcountry for the Cure and jump rope event for the American Heart Association.

Buist doesn't allow any sugary beverages on campus, promoted a policy of not having sweets at school birthday parties, and has a food-based garden.

Clubs included "I B Walking" and "I B Running."

Students and staff participated in the Cooper River Bridge Run and Charleston Kids Marathon.

Angel Oak Elementary

Among the initiatives at Angel Oak was continuing a partnership with the Charleston Area

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

Children's Garden Project to create a school garden, build a greenhouse and hold in-school farmers markets. Students also took field trips to farms. On Tuesdays, the school held a cooking club featuring healthy recipes, such as pumpkin lasagna, vegetable stir-fry and Hoppin' John.

Angel Oak participated in Walk to School Day, and running club members completed the Charleston Kids Marathon. The school finished second in the Charleston County Park and Recreation Commission's "Get Out, Get Active" program. The school also secured a \$2,000 grant from McDonald's to purchase fitness equipment.

Goodwin Elementary School in North Charleston won the third annual grand prize for wellness and a total of \$3,000, from the Medical University of South Carolina Lean Team/Boeing Center for Children's Wellness.

Photo Gallery



CCSD Wellness Contest

Contest results

Seventy-two schools out of 80 in the Charleston County School District earned \$1,000 each, funded by Boeing, for wellness efforts in the 2012-13 school year. That's up from 52 schools in the previous school year.

Of those 72 schools, 47 were elementary, 12 were middle and 13 were middle/high schools.

Schools were scored based on a checklist of activities and programs, such as school meals, snack policies, promoting water drinking, having a school garden, exercise activities, staff wellness efforts and community partnerships.

The top three schools in this year's contest were Angel Oak Elementary on Johns Island, Buist Academy (housed in Mount Pleasant for 2012-13) and Goodwin Elementary School in North Charleston. Each was visited by members of the MUSC Lean Team/Boeing Center for Children's Wellness "prize patrol" for verification of activities on checklists.

Goodwin won the 2012-13 grand prize and was the first Title I school to do so. Previous winners were Sullivan's Island



Hope

Reardon, a teacher at Hursey Elementary, was nominated for setting an example of

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

health living and an active lifestyle by losing more than 100 pounds.



Kelly

Kowalchick and husband Paul volunteer at Mount Pleasant Academy and started an afterschool "Speed and Agility Club." They teach exercise and nutrition.



Carzenia

Brown, a nominee, has fought to improve her health and lost more than 100 pounds. She encourages others at Wando to take up healthy habits.



Caitlin Swords,

a teacher and chorus director at Stall High, was nominated for winning the school's "Biggest Loser" contest and for positive energy and determination.

Elementary School and Harbor View Elementary School.

In all, nine faculty members were nominated by principals for the Mark Cobb Transformation Award, provided to a staff member who has served as an example of making positive health changes and played a major role in the school's wellness efforts. Only three were nominated last year.

In all, 72 schools with committees that coordinated yearlong wellness initiatives vied for the award. Each received \$1,000, to be used for wellness equipment and programs, for this year's efforts. The awards were presented at the MUSC/Boeing Second Annual Wellness Roundtable on May 22 at Stall High School.

Words from winner

Melissa Zaremba, a third-grade teacher and wellness committee chairwoman at Goodwin, recalls taking copious notes at last year's presentation, but not with her sights of winning this year's top honor.

"I just wanted to change what we were doing," says Zaremba, holding a silver cup trophy in her hands that will stay at Goodwin during the coming school year.

"We still have some changes to make. It's a work in progress. Some things were easy to do. Some things were going to take more time."

Both she and Principal Diane Ross said the easy tasks were writing a mission statement, creating a school garden and starting a CATCH (Coordinated Approach to Child Health) tip of the day during the school's daily news show.

The hardest part: changing parents' minds about birthday parties and other celebrations conventionally celebrated with sugary foods.

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>



Megan Link, a theater teacher at the Charleston School of the Arts, was nominated as an inspiration for losing 60 pounds and completing three running events.



Stall High Assistant Principal Daniel Ilagan, wellness committee head, leads by example, says Principal Kim Wilson. He has created a school wellness newsletter.



Belle Hall Elementary School Nurse Kathryn Nash won the Cobb Award. Principal Kevin Conklin says she is a "transformational leader and healthy lifestyle advocate."



Larsyn Runion,

"It is difficult to get them to wrap their mind around the fact that we don't need cupcakes at everyone's birthday," says Zaremba. "We know our demographics. We know our children. As a Title I school, parents want to support their kids anyway they can, and the only thing they know what to do is to buy cupcakes."

Ross says the wellness accomplishments are, and will continue to be, a faculty-wide effort and that she and the faculty understand the importance of setting an example.

"We started doing Fit Club, Insanity and Zumba. I bought everyone mugs so they could start drinking water," says Ross. "It's a team effort and you just have to model and people will follow."

Seed money

The school wellness gathering at Stall on May 22 was a dramatic showing that the future of wellness efforts in the Charleston County School District is looking up.

Representatives filled an auditorium and listened intently on the initiatives by representatives of Goodwin, Angel Oak and Buist schools. Vendors featuring health and nutrition products and services filled the lobby and passed out free food and beverages.

The event not only honored the schools, but faculty members nominated by principals for the Mark Cobb Transformation Award, designed to honor those who have served as examples of personal health but also have shown an interest in contributing to a "wellness culture" at the schools.

Dave Spurlock, district coordinator for wellness, credited the Boeing Co. for providing "seed money" as an incentive for spurring initiatives.

"Without the help of Boeing, this would be nothing but back patting," Spurlock said during the greeting at the roundtable.

Goodwin Elementary is top wellness school in Charleston Coun...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

a science teacher/ wellness committee organizer at Wando High, was nominated for creating countless activities to promote wellness at Wando.



Cole Dillard and Catey Jacobs, third graders in Stephanie Sykes class at Buist Academy, sit on Swiss stability balls while doing school work. All but one of the students in the class like sitting on the balls better than chairs, but unfortunately, it's up to the parents to buy the stability balls and the class doesn't have enough for everyone to use. David Quick/postandcourier.com

And yet, \$1,000, which must be used for wellness programs, can be stretched so far.

Jennifer Moore of the MUSC Boeing center says the money has gone a long way for local school wellness, which is "not something that is funded and has never been a priority."

"Look at what even a small amount of money for what schools can do," says Moore of the initiatives spreading across the district. "They (wellness committees) are so creative."

Coleen Martin, who preceded Boeing's involvement between the MUSC and the school district, says the MUSC/Boeing center staffers are amazed at how far the schools have come in such a short time.

"They achieve things under every circumstance that you can imagine. They don't have a budget for this. You heard all of the amazing things they did with no taxpayer budget," says Martin.

Partners wanted

Boeing provides the biggest chunk of change for the wellness contest, but the MUSC/Boeing center is looking for more partners to join in the endeavor from volunteering services and making donations.

For example, on the eve before this year's roundtable, Earth Fare supermarket stepped up with a \$1,000 donation via a relaunch of its website and a Facebook promotion.

"We're happy to give back to the community," Hannah Ross, a spokeswoman for Earth Fare, said to the crowd.

Spurlock says Harbor View Elementary School received the money because it has continued strong wellness efforts, but was ineligible to compete for this year's contest because it was the 2011-12 winner.

APPENDIX 15

Sullivan's Island Elementary wellness finale reinforces lessons I...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

The Post and Courier

Sullivan's Island Elementary wellness finale reinforces lessons learned during school year

David Quick

Twitter

LinkedIn

Posted: Tuesday, June 11, 2013 12:01 a.m.

UPDATED: Wednesday, June 12, 2013 3:45 p.m.



David Quick/Staff Students at Sullivan's Island Elementary School practice yoga in a class taught by Rachel Cassia Glowacki. [Buy this photo](#)

Last Tuesday, Sullivan's Island Elementary School (temporarily housed in Mount Pleasant) was buzzing with activities from dry land surfing lessons, Zumba and yoga to lessons on dental hygiene and heart health.

Sullivan's Island Elementary wellness finale reinforces lessons l...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

David Quick

Opinion



It was the school's grand finale of its multifaceted, yearlong wellness initiative and an effort to reinforce the lessons learned during the school year two days before summer vacation started.

The virtual festival of fitness also capped for me an awareness that teachers, administrators and parents, despite all that is heaped on them, seem to be creating a wellness culture at many schools in the area.

As you may have read in this space a week ago, the Medical University of South Carolina Boeing Center for Children's Wellness celebrated the efforts of 72 of 80 schools in the Charleston County School District meeting criteria for wellness. Each received \$1,000 from Boeing to be earmarked for wellness efforts. Goodwin Elementary School in North Charleston won an additional \$2,000 for racking up the most points on a checklist.

Photo Gallery



Sullivan's Island Elementary School Wellness Festival

Coleen Martin of MUSC Boeing noted this was the first year that the Berkeley County School District has partnered with the center on a similar program. Twelve of its 21 schools qualified to win awards, and nine schools in Dorchester District 2 did the same.

But Sullivan's Island is a trailblazer of sorts. It won top school in Charleston County for 2010-11, the first year the prize was offered. And it's not resting on its laurels.

School wellness committee member and physical education teacher Abbie Buckheister says the finale was a way to bring all the lessons they learned and apply it during their summer break, including protecting themselves from the sun and being smart in the water as well as on bikes and boats.

"Everything they are going to do throughout the summer, we just wanted to reinforce that (they) can be safe and healthy and continue to eat the right things and drink plenty of water," says Buckheister.

Wellness Committee Chairwoman Linda-Marie Hamill says that the school's yearlong effort continues to evolve according to what works and what doesn't.

This year, for example, the school received a grant from the Cooper River Bridge Run to

Sullivan's Island Elementary wellness finale reinforces lessons I...

<http://www.postandcourier.com/apps/pbcs.dll/article?AID=/201...>

provide Zumba 7:10-7:30 a.m. on Mondays, Wednesdays and Fridays. The early morning movement, Hamill says, paid off with students charged up to learn.

One of the aspects of Sullivan's Island's approach, as with some other schools, is incorporating eco-friendly living into wellness. At the finale, a recycling station was one of many stops at the event.

Like so many things in life, change typically starts with children. Adults often can be resistant to change. Sometimes their children can help them. But the course is better set in childhood.

Sullivan's Island Elementary's demonstration of its commitment gave me some hope that the Americans of the future will practice health in nearly all elements of their lives.

After all, healthy living is a lifestyle.

Reach David Quick at 937-5516.

APPENDIX 16

The State | 01/27/2012 | South Carolina task force tackles childhood obesity <http://www.thestate.com/2012/01/27/v-print/2129847/new-state-task-forc...>



The State
South Carolina's Homepage™

[Back](#)

Friday, Jan 27, 2012

Posted on Fri, Jan. 27, 2012

South Carolina task force tackles childhood obesity

By JOEY HOLLEMAN

jholleman@thestate.com

Increasingly alarmed by the rate of childhood obesity in the state, physicians in South Carolina are leading a new effort to focus on the problem and possible solutions.

Some efforts are working, evidenced by the childhood obesity rate hitting a plateau of around 17 percent in the past two years. But South Carolina still ranks in the bottom 10 among states. Nearly 32 percent of the state's children are considered either obese or overweight. (National levels are 12 percent obese and 28 percent obese or overweight.)

The S.C. Medical Association's Childhood Obesity Task Force was formed to bring together physicians, researchers, school leaders and state health officials.

At the group's first meeting Thursday, members discussed some of the programs that are working well and how to spread those successes to other areas.

"I started practicing in 1982, and it was rare then that I saw an obese child," said Dr. Vincent Degenhart, an anesthesiologist in Camden.

Obesity creates a multitude of health problems, including making it more difficult for an anesthesiologist to prepare a child for surgery.

As Degenhart got the task force idea rolling in recent months, he had no trouble recruiting others.

The task force "is a sign that we doctors in South Carolina are not just interested in treating diseases and illnesses," said Dr. Janice Key, an adolescent medicine specialist at the Medical University of South Carolina.

She talked to the group about MUSC's The Lean Team effort, which sends pediatricians, dietitians and health educators into schools and communities to talk about the need to eat right and exercise.

The Lean Team has been particularly successful at implementing school wellness councils, which schedule routine and special fitness programs in Charleston County schools.

In one effort that measured the weights of 615 participants in Lean Team programs, 76 percent of obese teachers and 40 percent of obese students lost weight in the first three months.

Others efforts have been tried in recent years, including several statewide summits on obesity put together by the nonprofit health advocacy group Eat Smart Move More South Carolina. The new task force plans to build on the progress.

"Most of the success has been at the community, grass-roots level," said Dr. Jennifer Root of Columbia, another of the task force members. "But we don't have another 10 or 20 years to let it bubble up. We have to boost the speed at which these grass-roots programs spread."

The task force includes many of the people who have been working on the problem for years – Eat Smart Move More, state health departments, state school officials and USC researchers. But this effort has a more direct connection with the medical association and physicians working on the front lines. Key cited studies showing people are much more likely to acknowledge a weight problem and do something about it if their doctors talk to them about it.

© 2012 TheState.com and wire service sources. All Rights Reserved. <http://www.thestate.com>